

### John Skelton Williams, Former Comptroller of the Currency, and a Member of the Federal Reserve Board, Denounces the Deflation Policy of the Reserve Board and the Mismanagement of That Organization

Nothing which the Manufacturers Record has said during the last two years in regard to the destructive work of the Federal Reserve Board is comparable in intensity of expression with the statements now made by Mr. John Skelton Williams, the former Comptroller of the Currency and a member of the Federal Reserve Board. Williams' speech, which we publish in full, is an overwhelming confirmation of everything that we have Mr. Williams' speech, which we publish in full, is an overwhelming confirmation of everything that we have said, and we can only regret that he did not make his protest by resigning his office and stating to the public what he now says with such intense vigor. Had Mr. Williams taken that step we believe he would have saved this country billions of dollars and brought to himself the unbounded gratitude of millions of suffering business men and farmers. We do not know why, holding the views that he has now so vigorously expressed, he did not take that step, but we rejoice that he has given the country a marvelously interesting presentation of the destructive work of the other members of the Board. It is difficult to estimate the importance of the statements which he now makes.

Mr. Williams charges the other members of the Board, and especially Governor Harding and former Secretary of the Treasury Houston, with a determination to break down prices regardless of the fearful losses involved. He refers to their work in this respect as "brutal," and charges that the other members of the Board carried their secrecy to such a point that even he, a member of the Board, was not allowed to see some of the reports of their actions. He shows by extracts from his letters to the Board his determined opposition to the deflation policy which was then being carried on. He pointed out how this was destroying the business interests of the country, and he vigorously denounced the enormous rates of interest which some Federal Reserve banks were charging their country customers. He points out that one country bank in Alabama was charged by its Reserve bank from 6 per cent to  $87\frac{1}{2}$  per cent per annum, the average rate which it paid for the last two weeks in September for an advance of \$112,000 being about 45 per cent.

These and many other things Mr. Williams presents with a definiteness and with a denunciation of the present management of the Federal Reserve Board which must necessarily startle the country.

Some months ago the Manufacturers Record heard a rumor to the effect that Mr. Williams was opposed to the deflation policy of the Board. Over and over again we expressed the hope that if this were true he would come out from the Board and state publicly his reasons, but we were never able to draw from him through these suggestions any intimation as to whether he was in harmony with the Board's work or not.

Like Mr. Lansing, he has made a revelation of tremendous import, but this revelation would have been worth a thousand times more to the country if it had been made a year ago than at this late date. His speech is an epoch-making one. The country will forgive him for not having made the fight in the open long before, for the tremendous blessing which will come to it now from the light which he throws upon the work of the Board and its brutal campaign of death and destruction of business.

For two years we have been saying many of the things which Mr. Williams now says from official knowledge. He states them from inside official knowledge with tremendous power and intensity. Would to heaven that for his own sake and for the country's sake he had said these things a year ago!



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# From The Editorial Page Of "Power" January 18, 1921

### What Does a Pound of Babbitt Cost?

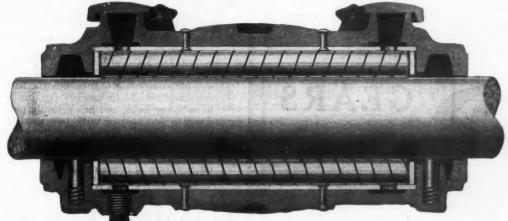
To ask what is the most expensive part of a machine would seem strange perhaps, but a very definite answer to such question can often be given. The part that wears out, breaks or gets out of adjustment most often is unquestionably the most expensive part.

Babbitt metal is quoted variously according to grade and local market. But whether it be fifteen cents or fifty cents a pound makes relatively little difference in the last analysis, for the cost of the metal itself is but a small part of the cost of a bearing for which it may be used. When one adds together metal cost, labor of casting and the cost due to loss of service from the equipment or machine while undergoing repairs, it is evident that the babbitt once in place may literally be "almost worth its weight in gold."

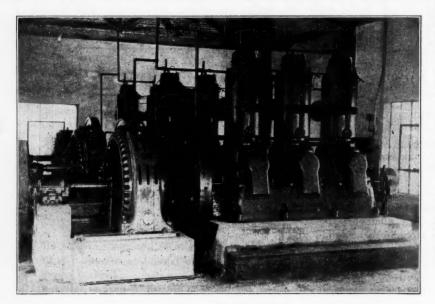
A breakdown once in a while is to be expected. A repetition of such a break from the same cause requires careful investigation. A third break or frequent repetitions of interruption from a single cause represent something worse than a bad habit. The part, the machine or the man that is to blame has to change or be eliminated. Parmanently, such part or man is too expensive at any price.

When figuring costs of maintenance or repair, all these factors must be taken into account. As in public utility service, so also in individual power plants, continuity of service is, next to safety, a prime requisite. Anything that prevents regular service creates expense—not only the direct cost for a new part, but also the cost of its installation and the still greater element of expense, the loss of production during interference with the machine.

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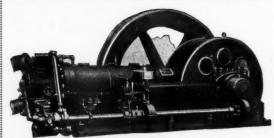
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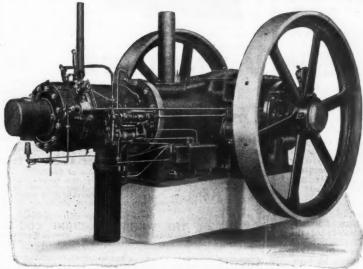
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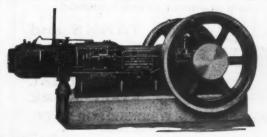
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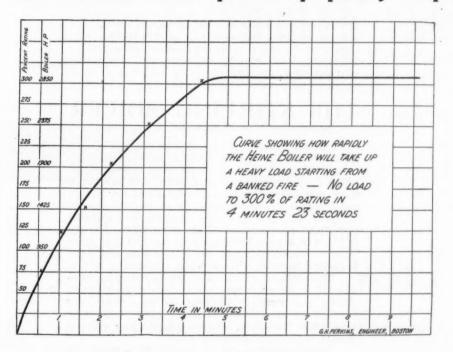
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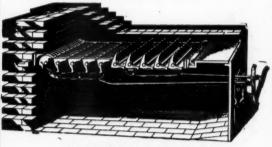
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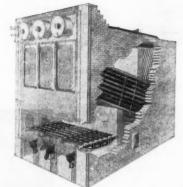
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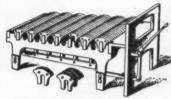
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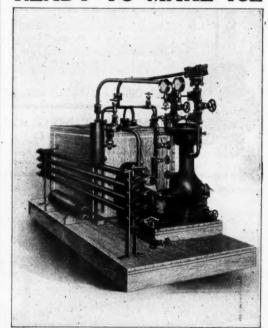
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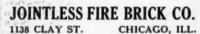
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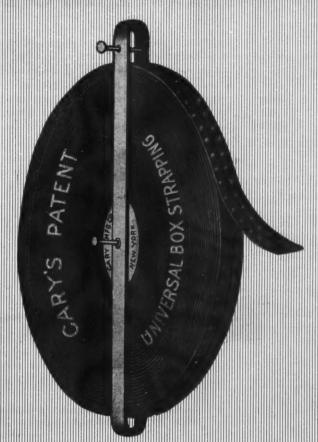
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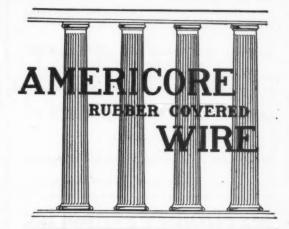
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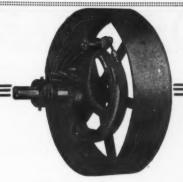
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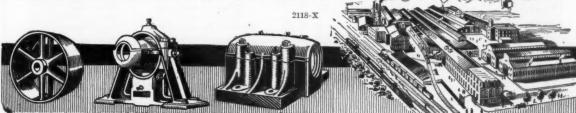
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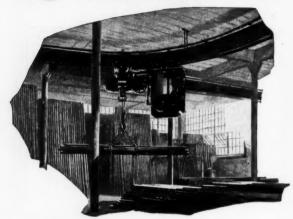
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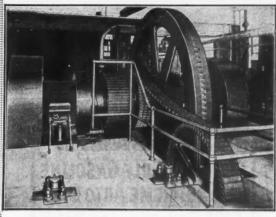
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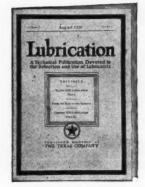
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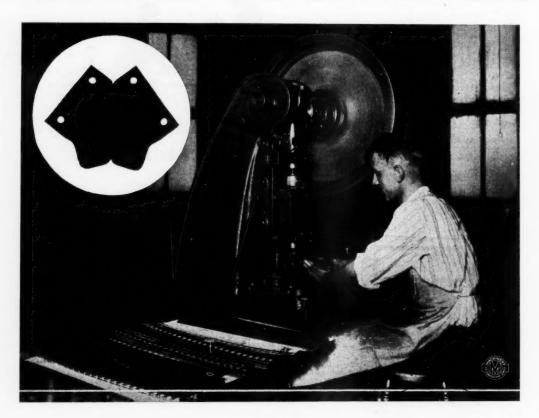


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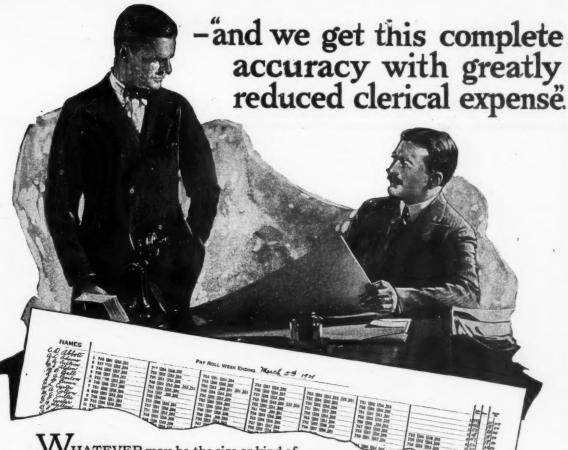
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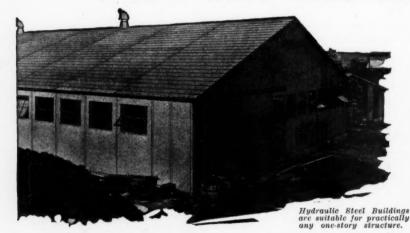
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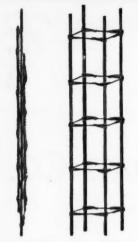
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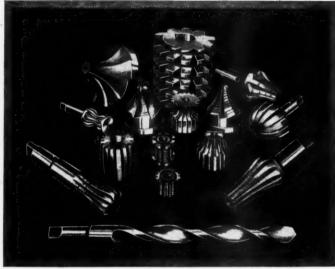
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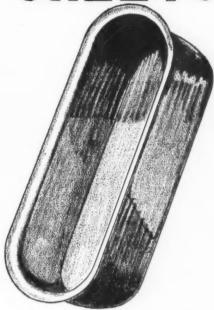
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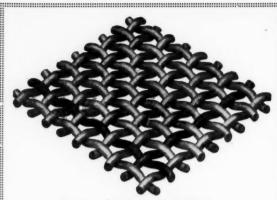
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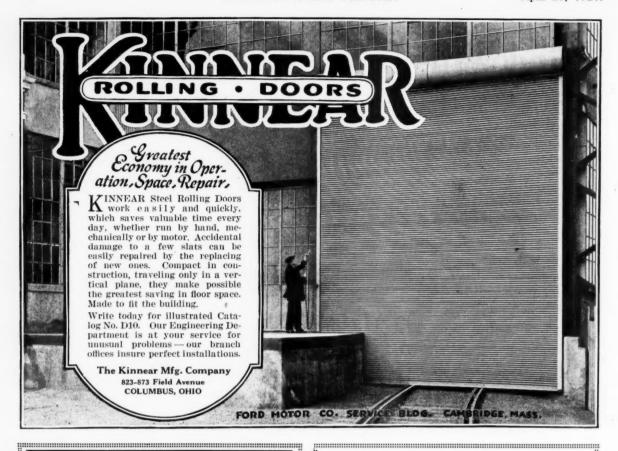
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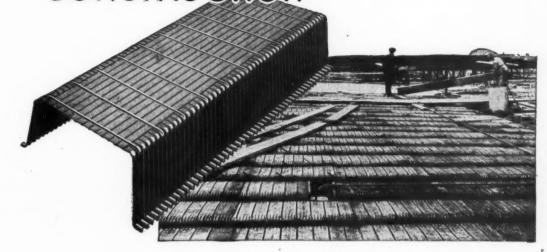
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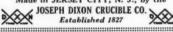


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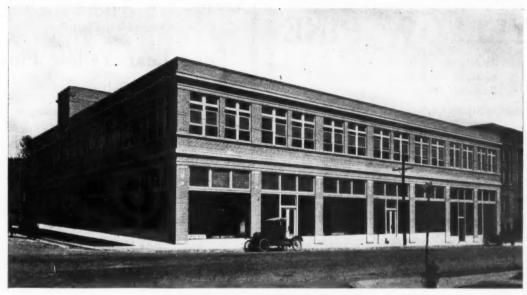
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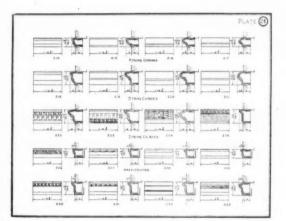
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Here is reproduced Plate No. 24 in the catalog of Atlanta Stock Designs, showing the variety of mouldings and architraves offered, from which were selected those used in the Keith-Patterson Building.

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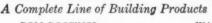
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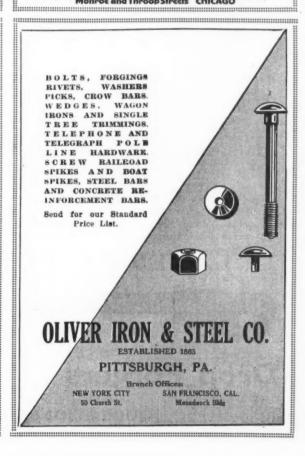
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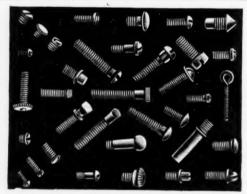


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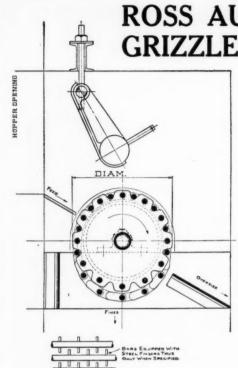
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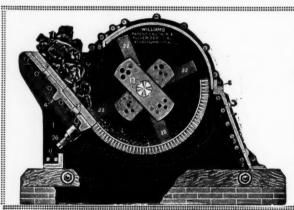
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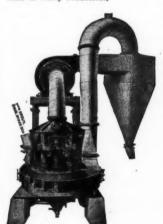


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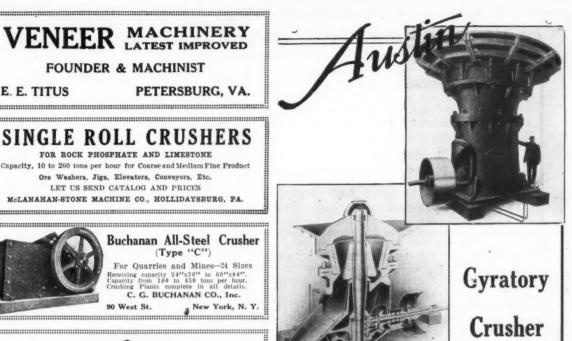
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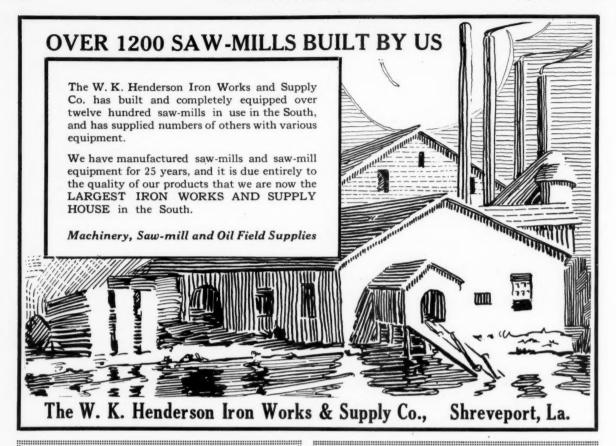
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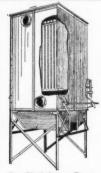
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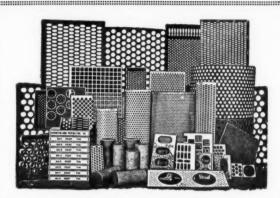
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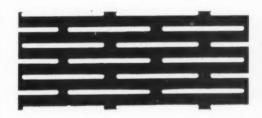
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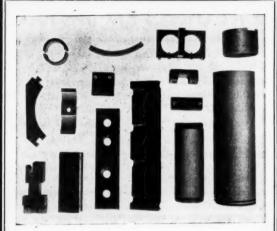
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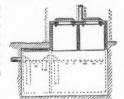
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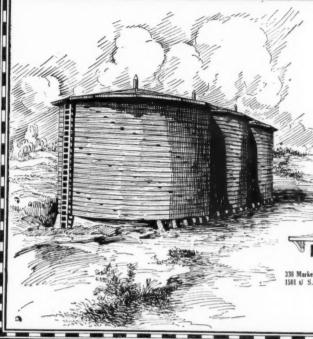
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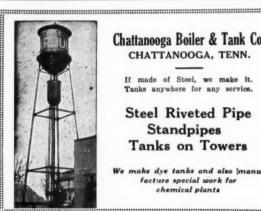
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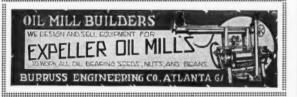
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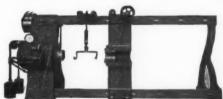
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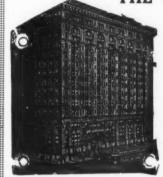
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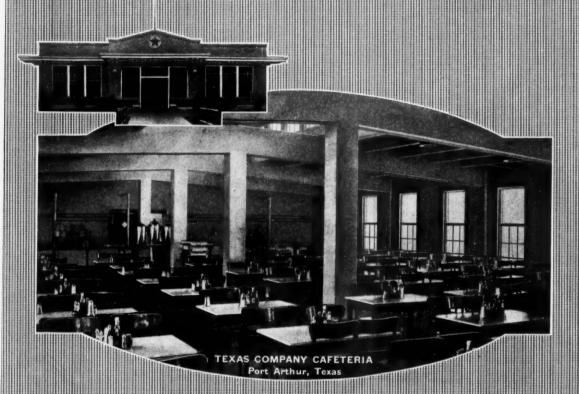
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Heavy Oil 455°-572° F. 36,34% of total tar by wt. 39.35% of total tar by vol. Sp. G. 951. Acids 12.8% by vol. Buses 2.4% by vol.

Middle Oil 338°-455° F. 14.98% of total tar by wt. 16.23% of total tar by vol. Sp. G. .950. Acids 38.0% by vol. Buses 1.2% by vol.

Pitch above 572° F. 44.31% of total tar by wt. 39.14% of total tar by vol. Sp. G. 1.258.
Melting Point 32° F.

Fusion Determination. Lab. No. 26410 = 2700° F.

	Proxi	mate			
	0%	%		Ulti	imate
	Dry.	Com'l.		%	%
Moisture		2.23		· Dry.	Com'l
Ash	4.08	3.99	Moisture		2.4
Volatile		41.24	Carbon	80.48	78.5
Fixed Carbon		52.54	Hydrogen	5.29	5.10
	00.12	02101	Nitrogen	1.61	1.5
			Oxygen	7.82	7.63
	100.00	100.00	Sulphur	.72	.70
** ** **			Ash	4.08	3.99
B. T. U	14416	14095			-
Sulphur	.72	.70		100.00	100.00

Maximum Temperature in Retort, 2100° F.

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Tar—232.4 lbs. per ton = 20.4 gallous per ton.

Calc. heat value of gas = 574.4 B. T. U. per cu. ft. at 60° F. and 30" mercury pressure.

Coke Analysis.		Gas Analysis.	
	1.84	Carbon Dioxide.         (CO2)           Illuminants         (O2)           Oxygen         (O2)           Hydrogen         (H2)           Carbon Monoxide         (CO)	4.2 1.3 54.9 5.4
B. T. U	$13383 \\ .55$	Methane	24.2 2.0 6.8
Sp. G. Dry Tar.	1.030		100.00

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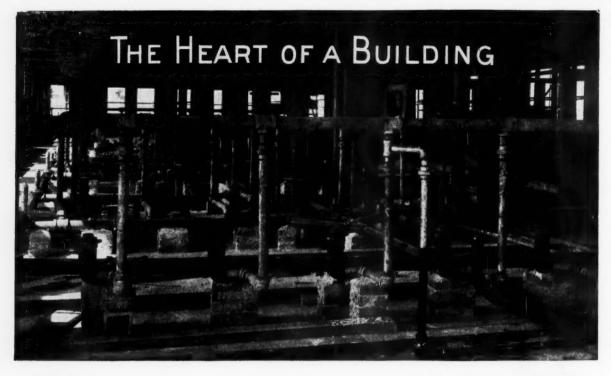
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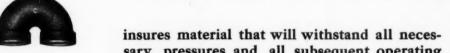
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# Manufacturers Record

# Exponent of America

APRIL 21, 1921

Volume LXXIX	Table of	Contents	Number 16
John Skelton Williams, Former Com Board, Denounces the Deflatio That Organization	n Policy of the R	rency and a Member of the Federal eserve Board and the Mismanage	ment of
EDITORIALS			77 - 85
"The Worst Is Over."  Former Comptroller of the Currency the Curtain on "Deflation," Substitute Charge The Manufacturers Record Easier Credit.  England Bidding Up Egyptian Cott The Tide Has Turned!  Transportation Costs Prove Necessity Tariff.  An Inspiring Example Set by a facturer.  How to Get Business Now.	tantiating Every Has Made. on. of a Protective	"America First!" Is Good Doctr The Light Breaking on Federal E Let the South and the Whole Natistand. A Sample of Optimism. Socialistic Theorizing and Some plied Socialism Will Not Stand Not Hysterical. New Policies As Seen by a So Revelations About the Federal I Credit and the World's Trade.	teserve Board Tactics.  tion Read, and Under-  Concrete Facts—Ap-  the Test of Time.  uthern Banker.
	NEWS AF	RTICLES	
The South's Need for a Protective			
\$15,000,000 Educational Program.			
Edmonds Predicts Business Revival.			
			87
\$29,000,000 in Southern Constructi	on Activities for V	Week Ending April 15—Erection	of Dwellings
Seven Southern Cities Report Total			
Large Cement Plant to Be Erected			97
Administration's Financial Forces			
the Currency			99
Steel Corporation Not to Cut Wages			101
	DEPART	MENTS	
The Iron and Steel Situation Railroads	104 106 107 108	Construction News	
	PUBLISHED EVERY T	HURSDAY BY THE	-

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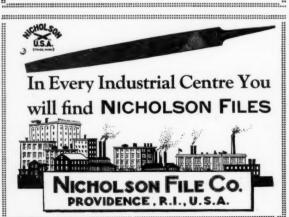
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VOL. LXXIX, No. 16 WEEKLY.

BALTIMORE, APRIL 21, 1921

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#### "THE WORST IS OVER."

Industrial Board, Chattanooga Chamber of Commerce, Chas. W. Howard, Manager.

Chattanooga, Tenn., April 8.

Editor Manufacturers Record:

Your weekly message comes to all of us as a tonic of rare virtue: a knowledge of the source of your inspiration would be of incalculable value to mankind. These talks of yours on "nerve, sand, red blood, backbone, grit, the never-quit quality of the thoroughbred business man" are as battles won to the near-discouraged fighter.

The mighty strength of America "licked" Germany before their soldiers ever faced our boys; true, they gave us some hard knocks, but neither the mind nor the heart was behind the blow. America's reputation landed in Germany long before our first soldier boys. America's battles have been fought and won on every field of human endeavor by the same force that will carry us safely through this depression if we will only use those qualities that have gained us former victories.

The manufacturers of Chattanooga and the Chattanooga banks are working and standing shoulder to shoulder; our banking interests rightly consider it a reflection upon them to permit the failure of any well-managed concern employing labor and pro-ducing an article that meets a demand in normal times and that can compete with its kind in the markets of the world, and such concerns should be cared for to the limit of prudence.

Chattanooga has been exceedingly lucky. (Is it luck?) have had no failures among our manufacturers and but precious few and unimportant in commercial lines.

Chattanooga made and sold \$135,011,000 worth of goods in 1920 and added practically \$10,000,000 to her industrial establishments in new and additions to old concerns.

We are running 70 per cent today; we have weathered a number of storms more severe; the worst is over. If we are not yet on "shouting ground," we still have reserve power to "beat the drum" and carry on to that good day when the field stakes will go to the thoroughbreds whose nerve never flinched and whose heart beat true to breeding.

CHAS. W. HOWARD.

FORMER COMPTROLLER OF THE CURRENCY WILLIAMS LIFTS THE CURTAIN ON "DEFLA-TION," SUBSTANTIATING EVERY CHARGE THE MANUFACTURERS RECORD HAS MADE.

H OW do the amazing statements of truth made by former Comptroller of the Currency John Skelton Williams, published elsewhere in this issue, fit in with the charges made by this newspaper repeatedly during the months preceding the decision to bring about a panic, and subsequently, after one had been precipitated?

We charged that the Board was engaged in a drastic deflation program. Governor Harding said the deflation was not drastic and Governor Seay of the Richmond Reserve Board flatly denied that there had been any deflation and charged the Manufacturers Record with false statements.

"Governor Harding remarked that the process of deflation was 'somewhat analogous' to what takes place 'when a balloon is punctured and the gas escapes.' I urged that sensible men bring down balloons by careful handling of valve ropes and ballast, not by driving a hole in the bag and precipitating collapse and ruin."—John Skelton Williams.

We charged that the Federal Reserve Board had deliberately planned to break the commodity markets, and did break them. Governor Harding's answer was that the Board's policy had nothing to do with the break, but that it was a natural world-wide disaster, begun in Japan.

On the 18th of October I pointed out that the decline in prices, facilitated by the policies of the Board, had become too rapid. I itemized some of the appalling shrinkages of values, for instance, loss of \$500,000,000 in wheat, to which \$500,000,000 or more is to be added since that time; from \$1,000,000,000 is \$2,000,000,000 in corn; a billion in cotton. I used these words: "The plans and policies which have aided in bringing about deflation in the great staple commodities should be at once taken up for consideration and revised as far as may be necessary to meet present and changed conditions. If this is not done speedily, I am fearful as to the consequences which may ensue.' Skelton Williams.

We charged that the suspension of the War Finance Corporation was for the purpose of aiding in the breaking of cotton prices; that its revival would be beneficial, and that Secretary Houston did not wish it revived, because such revival would interfere with his bankrupting program.

The situation has become more aggravated of late, and unless relief can be found, an increase in bank failures, I believe, will be inevitable. The revival of the War Finance Corporation would provide, in my judgment. a much-needed steadying influence at this time."-John Skelton Williams in a letter to the Secretary of the Treasury, the Chairman of the Federal Reserve Board, October 21.1920.

We charged that the panic was unnecessary, arbitrarily brought about and persistently kept alive deliberately by the Federal Reserve Board.

"I believe firmly that the Board by its power to regulate and

increase or reduce the supplies of funds and the interest charges for money could have saved us from a fall so precipitate and smashing, and from much of the distress and ruin through which we have been dragged. It could have made the shrinkage of values more gradual and uniform instead of violent and sporadic; could have helped strongly to keep the circulating currents of commerce at more even flow, so that the losses of each producer might be offset by reasonable reduction in the cost of what he must consume."—John Skelton Williams.

We charged that the legal reserve was not endangered, as Governor Harding claimed, but that millions in additional credit for legitimate business could have been granted without impairment of the soundness of money.

"Our Federal Reserve banks at this time have an unused lending power of approximately \$1,500,000,000, or 10 times as much as the maximum amount which all the national banks of the country ever borrowed at any one time on their bills payable or rediscounts prior to the European War."—John Skelton Williams.

We charged that there had been an inexcusable withholding of credit, particularly to agriculture, and Governor Harding answered that loans had been extended instead of restricted.

"There has, in my opinion, been an indefensible withholding of credit in many of the producing sections of the country when sorely needed. I stated frankly at a meeting of the Federal Reserve Board not many weeks ago that a high ratio of reserve indicating useless impounding of funds in reserve banks under existing conditions, when money is so badly wanted for the legitimate purposes of agriculture and business of all kinds, was a thing for the Board to be ashamed of rather than to boast of."—John Skelton Williams.

We charged that the Federal Reserve System, with average profits of over 150 per cent, was profiteering, and Governor Harding attempted before a joint congressional committee to prove that the system was really earning less than 7 per cent.

"My attention has been called to a little national bank in the cotton section of Alabama, which, in September, 1920, the height of the cotton-moving season, was straining its resources and credit to aid its community and assist its customers. 85 per cent of them farmers and cattle raisers. That country bank was charged by its Reserve Bank under the progressive rate from 6 per cent to 87½ per cent per annum. The average rate which it paid the last two weeks in September for the advance of \$112,000 was about 45 per cent."—John Skelton Williams.

We charged that the Federal Reserve Board was cold, heartless, bloodless, stagnant, routine-ridden, soulless in its policies, unresponsive, set in its ways, incompetent, slow, theoretical and academic; an agency by, of and for bankers, pursuing a program devised to making the banks prosperous, no matter what happened to commerce and industry in the meantime.

"Every civilized government has been and is hampered in every emergency by 'bureaumania.' Victims of it lose initiative, human sympathy and the capacity for human interest in any event or person. Their thought is compressed in fixed uniform molds, each exactly like all the others. Emotions are diluted until hardly a trace of them remains and faculties are congealed and atrophied.

\* \* \* That this evil of 'bureaumania,' that would threaten our national banking system, has already impaired the value of the Federal Reserve System I believe strongly—my belief based on practical experience and the results of actual experience.

\* \* I regret to say that my remonstrances and appeals seemed to create in the majority of my fellow-members the mood of an old gentleman aroused rudely from a nap. \* \* I am giving this outline of inside events to support my contention that Congress should take action to provide against negligence, lack of ability or stubborn disregard of the needs and rights of the public by the Board or any future Board."—John Skelton Williams.

We charged that the Board was secretive to an extent never before known in America; that it declined to permit visiting delegations to obtain its own reports of hearings, if any, held, and that no bureaucracy in all Europe would have dared to withhold vital information from the public, as did and does the Federal Reserve Board.

" \* \* \* The tremendous issue as to whether or not I should be furnished with copies of stenographic reports of certain meetings of the Board which minutes the Board has apparently decided to keep as a profound secret—and, as they have recently stated solemnly, 'under seal.'"—John Skelton Williams.

Why go on? Every charge that we have made is substantiated, and more than substantiated, by former Comptroller Williams, who lifts the veil of secrecy, in some respects, from the intimate doings of the Board, and reveals it for what it is—a debating society of narrow-minded gentlemen who made the most colossal blunder ever recorded in financial history and thereafter obstinately persisted in it, presumably on account of stiff-necked pride. The Board is revealed as an agency of the Government which has prostituted its authority to accomplish and perform just those things it was appointed not to do, and has done none of the things it was appointed to do. It has all but destroyed the national faith in the Reserve system itself, and it has furnished to any demagogue who wishes to avail himself of it abundant material on which to base political attacks on the system.

Will our readers study Mr. Williams' speech and then say if every charge we made has not been more than proven, and we never knew Mr. Williams' views. We knew it was rumored he was opposed to deflation, but no word to that effect ever came from him, and we supposed that if he was fighting deflation he would come out openly and fight for the sake of the nation.

We have fought the Federal Reserve Board's policies, not the Federal Reserve System, if wisely managed.

#### EASIER CREDIT.

W E have never doubted that the present Administration would help, not hinder, business. There is evidence that the easing of credit has already begun. We predict that the example set by the Boston Bank in lowering the discount rate will be followed throughout the Reserve System within the next 60 days.

#### ENGLAND BIDDING UP EGYPTIAN COTTON.

THE British Government, realizing the chaotic condition in the Egyptian cotton trade by reason of low prices, entered that market for the purpose of bidding up the price and saving the growers from destruction.

Frederick H. Andreas, Inc., of Boston, handling Egyptian and other long-staple cotton, quotes a letter written from Alexandria, Egypt, on March 24, in which his correspondent said:

"The feeling of confidence in higher prices which prevails since the Government took an active part was accentuated this week owing to the advance in prices fixed by the Government for its purchases. The truth is that up to the present sellers to the Government have been conspicuous by their absence, owing to the fact that as soon as the Government fixed its price for the week speculators would bid up the future market so that the Government prices would look too low. We hear that the Government is contemplating the purchase of spot cotton in Alexandria in addition to its policy of purchasing in the interior."

This is an interesting illustration that as soon as one buyer appeared in the market prepared to bid prices up, other buyers entered and outbid the Government. People always buy on a rising market, and rarely ever on a declining market.

A rising market with advancing prices means prosperity. A declining market with low prices means poverty.

The Alexandria letter from which we have quoted, referring to the planting of the new crop, reports great delay, which will, it is said, make the coming crop later than any ever before recorded.

#### The Tide Has Turned!

L AST week we said "Glory Be, the Wheels Are to Move Again!" Since then many things have happened. The Boston Reserve Bank has broken through the barrier and reduced the rediscount rate. The Railway Labor Board has abrogated the national agreements. These are two great constructive features, significant of the beginning of better things. But quite as significant was the meeting in Washington of the Class B directors of the Federal Reserve System.

When the Wilson Administration had decided to deflate the credit system to bring about the bankruptcy of agriculture and the accompanying panic, it summoned to Washington the Class A directors. The Class A directors are all bankers, sellers of credit. The Harding Administration, seeking to stay and not to accelerate panic conditions, called together the Class B directors. It is stated at the offices of the Federal Reserve Board that this is the first time they have ever so been called into conference. They are the users of credit, the men who use credit to produce things, not toll-takers, but makers of things. The sittings were confidential, but we have no doubt whatever that sentiments were expressed as to credit stringency quite in contrast with those which last winter were fashionable at the Capital. A conference in which Class B directors took part is likely to have results agreeable to the husiness world

It is worth noting that the report made by the Federal Trade Commission to the President on business conditions, and particularly some profiteering prices, gives specific reasons for conditions "aside from the important elements of transportation and credit." It also says that the first move in any campaign to bring down the cost of living "should be in the reduction of retail prices, accompanied by such credit assistance as will prevent any undue financial disorder." All the country wants is fair prices. And here we have the Federal Trade Commission very strongly intimating that one of the chief causes of prices that are unreasonably high is the high cost of credit. It is reflected in transportation costs. To illustrate, the cost of essential financing by the Northern Pacific and Great Northern railroads is so high it is going to result in additional fixed charges of an almost prohibitive character. Not all the watering of railroad and other stocks, of which so much is heard, will equal in cost to the nation the fixed charges that are being loaded at this time on to legitimate business the country over because of the high, unnecessarily high, cost of credit at this time.

It is perfectly clear, however, that this artificial condition cannot continue. The Boston bank was showing reserves of about 70 per cent, in the face of which condition continuance of credit restrictions was fast becoming a national scandal. Besides, it was having difficulty, we hear, in using its assets. Likewise, the school of tight finance is in a fearful mental condition, because the heavy imports of gold are rendering its position wholly untenable. It can no longer plead a shortage of the gold reserve. There is a flood of gold—so much gold that credit will free itself despite the Board. While the action of the Boston bank, therefore, may not be tremendously important in itself, it is of the utmost meaning if interpreted in the light of actual conditions. It forecasts the inevitable. It is the beginning of the return to sanity in our fiscal policy.

Another encouraging factor is the announcement of the War Finance Corporation that it has approved a loan of \$2,000,000 to facilitate cotton exports, and many millions more for the same purpose will soon be forthcoming. Likewise, a

new issue of Farm Loan bonds is announced, and this money will rapidly find itself in the channels of trade.

The Baltimore & Ohio Railroad reports signs of reviving industry, and Judge Lovett, chairman of the Union Pacific, after a thorough study of conditions in the West at first hand, reports that things will begin to hum after July 1.

It is known that the Administration will devote every effort to a reduction of freight rates. Some important reductions are already arranged for, although there has been little publicity about it. The way has been opened for considerable savings through abrogation of the national agreements and unquestionably essential wage reductions will be arranged sooner or later.

The auguries are beginning to be auspicious. We note the budding of a new psychology. There is evident a determination on the part of business leaders not to permit the longer continuance of this wholly un-American thing—depression. Far-seeing men are getting over the discouragement which the former Administration handed out in such large doses. People will still eat, still wear clothes, still drive their cars, still go to ball games; in a word, still consume. And the consumptive power of the American people is amazingly great. There has not been a buyer's strike. There has been a great void in the pockets of the buyers. Also, they were afraid to buy because they were told every morning by Government officials that prices would be lower the next day. Underconsumption is a phenomenon, not a characteristic of the American people.

Encouragement instead of discouragement; prompt enactment of legislation devised to give his buying power back to the farmer; active Government aid in financing farm products under sound business terms; sensible talk with labor instead of extravagant promises that never could be carried out, and, therefore, merely emphasized disorder; confidence that the Government will take care of its own before it takes care of others; revision of the taxation laws and funding of the debt; the longing of all business to get going again; the sureness of easier credit for legitimate business—these things combine to scent the spring with hope. They constitute the thermometer which shows that the fever is leaving the patient and the period of convalescence is at hand. It will take time for full strength to return, so appalling have been the ravages of the disease, but the crisis has been passed.

There were those who said that the difficulties attending any attempt to restore normal conditions were unsolvable. They are being solved. Oh, what an emollient is common sense and what mighty curative powers are there in so simple a thing as sanity!

# TRANSPORTATION COSTS PROVE NECESSITY OF A PROTECTIVE TARIFF.

(\*O UR present railroad rates will soon move our granaries to foreign shores, for today it cost 30 cents per bushel to ship grain from Missouri to New York, and the same amount can be shipped by water to New York from Argentine for 10 cents."—Secretary of Commerce Hoover.

The statement was recently made that rice could be shipped to Europe from New Orleans, thence back to an Atlantic port and to nearby interior points at a cheaper rate than from New Orleans to the point of destination direct. The relatively huge differential in favor of water shipments from abroad will remain even when railroad rates in this country are reduced. This means that even if the cost of production abroad were equal to the cost at home, the foreigner could enter our home markets at an advantage.

The only thing that can take that advantage away from him and put the American producer on even terms with him is a protective tariff.

#### AN INSPIRING EXAMPLE SET BY A SOUTHERN MANUFACTURER.

I N sending on order for advertising in the Manufacturers Record, the B. Mifflin Hood Brick Co. of Atlanta, Ga., sound an inspiring note of optimism, which manifests the right spirit and should encourage others to adopt the same aggressive methods of reaching out after business and acquainting the public with their activities. The letter in part is as follows:

"We are very much gratified with the improvement of business in this immediate section. During the month of March building permits used in Atlanta amounted to approximately \$1,100,000, about \$300,000 in excess of the next highest shown by any city in the entire South.

"We have always felt optimistic regarding the future of burned clay products in the South, so much so that we opened a branch office at Raleigh, N. C., February 1, 1920. The response of our customers to the service offered by the branch office was such as to impress upon us the necessity of opening branches in other territory, in consequence of which on January 1, this year, we opened branch offices at Memphis, Tenn., and New Orleans, La. This has enabled us to carry large stocks at Raleigh, Memphis and New Orleans, in addition to Chattanooga, Jacksonville, Savannah and Atlanta.

"We are quite sure the use of the MANUFACTURERS RECORD will give us the desired publicity and acquaint our friends with our activities and the location of our new branches."

#### HOW TO GET BUSINESS NOW.

Kirkpatrick Lumber & Timber Co.

Birmingham, Ala., April 9.

Editor Manufacturers Record:

The article on the front page of your edition of April 7, entled "Sound the Charge," is, in our opinion, splendid advice. The things that are most needed in the country today are backbone and hard work. There has been entirely too much loafing on the job, which creates a certain amount of indifference and a great deal of inefficiency.

You might be interested in knowing that we sold practically twice as much lumber during the month of February, 1921, as we sold during any one mouth of 1919 or of 1920, which was supposed to be the best year in the lumber industry, and we are glad to say further that we have sold more lumber during the month of March, 1921, than we sold during February, 1921.

How did we do that? Simply by keying our men up to work harder than they had been working and directing their efforts along definite and efficient lines, backing them up with strong advertising in their territory through the mediums of trade papers and circular-letters and personal letters.

The men of our organization have probably worked harder in the last three months than they have ever worked in their lives. As a result of this we have done more business than we have ever done in our life.

We have the best and most enthusiastic organization than we have ever had. Our men are enthusiastic, run of per all have ever had. They are using their heads; they are stiffening efter husiness and getting it, their backbones, and they are going after business and getting it, and other organizations can do the same thing if they put them-selves in the right frame of mind. The country has been too long afflicted with cold feet, alibitis and sleeping sickness, and we are glad to see the effort that you are making to wake the people up and to put them to work.

RHODES BOYKIN, Vice-President.

The foregoing letter from Vice-President Boykin of the Kirkpatrick Lumber & Timber Co. merely re-emphasizes what we have constantly said, to the effect that in time of depression, such as this through which we are now passing, it is the energetic, virile, aggressive concern which gets the business.

There is always a certain amount of business being done in this wonderful country of ours, with its 105,000,000 people who still eat, are still clothed, still travel, still buy automobiles, still crowd the resort hotels of the country, and still do more or less building. There is always something doing, and in the aggregate there is a vast amount being done right now. By virtue of the deflation policy of the Federal Reserve Board business has been greatly restricted, and poverty has been brought to millions; nevertheless, some people are busy,

some people are employed and those who get the business that is going are the aggressive concerns who "carry on" with increased intensity their hunt for work, which is indicated in the letter of the Kirkpatrick Lumber & Timber Co.

#### "AMERICA FIRST!" IS GOOD DOCTRINE.

HE almost universal approval of the President's first message to Congress was caused to a very large extent, we think, by one feature of it. President Harding put our domestic problems first. Designedly he put our foreign relations last. In no other way could he have more completely evidenced the line of cleavage between his Administration and that which went before it. "So be it," the voters in millions had said, and President Harding translated their thunder into the more decorous language of the council chamber.

We think the nation, too, was charmed by the lack of rhetoric, if that phrase can be used. There were no phrases for headlines, no writhing epigrams. "A language understanded of the people" is a language the people like. admire the intellectual colossus, but they fear him more. If this be the period of the great digestion, as it has been described, surely the process requires surcease from undue excitement. What between mandates for Armenia and cables at Yap, some millions of Americans had begun to wonder if there was a United States left on the map. Citizens who were without the wherewithal to feed their own families were being solicited for so many relief funds for the benefit of people in unmentionable localities. They were tired of it. They just wanted to hear somebody in authority say "My Own United

The Administration is not going to make any separate peace with Germany. That would be impossible, in practical results, as the other nations have already made peace with Germany. President Wilson used always to speak of the Associated Nations. He never included the United States in the "Allies." Not until after the war. The Harding idea is to keep up the idea of association without submerging the national identity. It is true that the treaty situation is all muddled up, as it was intended to be. But many centuries ago Alexander the Great discovered that when a knot could not be untied it could be cut. America will not be a member of the League of Nations, but she will honorably be with her Allies to see that Germany pays the price she contracted to pay as an alternative to annihilation.

"America First!" is good doctrine.

#### THE LIGHT BREAKING ON FEDERAL RESERVE BOARD TACTICS.

Nash Engineering Co.

South Norwalk, Conn., April 15.

Editor Manufacturers Record:

I am much interested in the fight you are making for expanded Unfortunately, the banking fraternity cannot view things except through the colored glasses of a banker.

The idea of the Federal Reserve Bank has some good features, but unfortunately it is administered by bankers. The amount of the circulating medium of the nation should not be under the control or the will of the banker, but it should be fixed by the requirements of trade.

The Federal Reserve Bank gives the bankers money they do not earn and the power of fixing extortionate rates of interest by restricting circulation. It is like giving the control of credit to

The people must evolve a sound financial system, and that

Nash Engineering Co.

LEWIS H. NASH, President.

Former Comptroller of the Currency Williams opens the door and lets the public see the inside workings of the Federal Reserve Board as infinitely worse than the MANUFACTURERS RECORD has ever stated.

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### Let the South and the Whole Nation Read, and Understand

T has been pointed out in this newspaper repeatedly, through a long series of years, that the economic system embraced by the South during the slavery period and adhered to for sentimental reasons thereafter-the system of free trade-was a burden so heavy that under its devastating weight the unparalleled potential prosperity of the section could not be realized. We have sought to emphasize the fact that the term "an exploited people" means a people adhering to free trade, particularly in agriculture, and that England, always appealed to as a great example of the excellence of free trade, adhered to it only for herself, not for her developing dominions, and that her trade statesmen, at any rate, were not in ignorance of the fact that the economic policy of the South was pouring into British coffers millions and billions of dollars that ought to have remained, and hereafter we trust will remain, in the United States. We do not blame these British statesmen. It is a wise man who looks after his own household, and this England does, with farseeing, never-sleeping energy, but we do believe that the South should come to appreciate, even at this late day, the paralyzing cost of its economic error.

No printed article which has appeared in recent years is more full of meaning for the South, more frank in stating the economic fact as it is, than a recent editorial leader which was published in the Morning Post of London. The new and first Legislature of India has proposed, ostensibly for purposes of revenue, to raise the duties on cotton imports. It is frankly admitted, however, that the duties are protective in character. The great Lancashire cotton industry has been appealing with vehement voice to the India Office to veto the bill. The Morning Post is speaking for this Lancashire group and for the whole body of economists who have advocated no tariff barriers in places whither it is hoped that British manufacturers may go. We quote:

"The economic purists in India may say what they like about the wickedness of dictating India's fiscal policy from Whitehall. The fact is that the British Empire in India was founded for the good of British trade. \* We are not in the least disturbed by the accusation which will be hurled against us that we take a 'sordid' and 'capitalistic' view of this question. There are about 12,000,000 good British subjects in Lancashire who live upon this trade, directly or indirectly. If to be solicitous for the prosperity and very existence of these people be 'sordid' and prosperity and very existence of these people be 'sordid' and 'capitalistic,' then we are 'capitalistic' and 'sordid.' We do not believe in indulging in beautiful ideals at the expense of some millions of our fellow-Englishmen. \* \* The British Empire. millions of our fellow-Englishmen. as we believe, conveys great benefits upon its subject races; but it does not exist merely for their benefit. To argue that it does is to take up a position which in the end will make it impossible for the British nation to live. If India is to be allowed to shut out British goods, there is no sense in keeping India, for it is then only a grave for Englishmen who hold it. We must not We must not screw ourselves up so far with the jacks of idealism as to lift ourselves right off the bed-plate of existence. When all is said, this empire exists that 40,000,000 Englishmen may continue to live on an island which by itself could not support 10,000,000. If we were now proposing to destroy an Indian cotton industry in order that an English one might be created, that might fairly be called an immoral proposition. But what is being done is to destroy an English cotton industry in order to create one in India.

What does this mean? It means that the cotton men of England are attempting by force to compel India to accept the identical economic policy which the South has voluntarily embraced and so disastrously clasped to its bosom, and it is a policy which England has assiduously cultivated in the South in order to buy cheap cotton and sell its products to America and the world. No wonder England wants to encourage the free-trade idea in this country. Think of it! "This is a policy which will build up India, not Britain," the British economists cry. "Our men in authority must veto it." But the South, free to make its own policy, through all these long, black years has lent its full political power to insistence on the very policy which these British traders admit is not good for India, but hope to force on India by might of Government. The South has made itself an India-an exploited country-exploited by every cotton-consuming country of Europe and by the cotton-consuming sections of our own country by conscious effort, largely, we blieve, because other problems pressed so hard that her economists did not take the time to re-examine her economic policy, accepting, as by inheritance, the doctrine preached by earlier statesmen, whose inspiration came from European writers whose object it was to make all subject countries contented under an economic system disastrous to them, but profitable to the manufacturing countries.

England, greatly to her glory, has renounced such exploitation. At the opening of the Indian Parliament, the Viceroy, in a speech of some length, traced the course and growth of constitutional government in India. He explained how inadequate the Morley-Minto half measures of 1907 had been proved by experience to be. The element of responsibility had therein been entirely lacking, and the elected members had found their sole function to be that of criticism. Today autocratic government had been finally abandoned and the policy of benevolent despotism renounced; only power of supervision and intervention in case of emergency had been retained.

Are men to whom the getting of bread and butter has become a difficulty to be led astray further by the paltry political arguments which still pour forth in volume from the bureaus of economic antiquities? How commonplace and demagogic is the minority report on the emergency tariff bill as submitted to the House? It hurls defiance at trusts and capital and wealth, old tricks of demagogy. It is, in fact, an assault on prosperity. Let any man who wants to know read, in contrast, the majority report. There stand the economic arguments, the immutable arithmetical totals, proving with the precision of mathematics the clear fact that an avalanche of ruin has swept through our ports over the farms of America. And when it is proposed to stop or stay this avalanche, to fight back the storm of disaster, a group of idol-worshipers raise their appealing eyes toward the zenith and seem to cry "Beware prosperity! Beware, beware!"

Here we have the spectacle of a Democratic Administration having, by an absolute embargo, preserved the American peanut industry in 1919. It wrecked it in 1920 by removing the embargo. Yet Democratic politicians, believing that the promise of cheap food and cotton clothes will win votes in the industrial centers, has the intellectual impertinence to proclaim that a tariff on peanuts would not help the farmer any-

how, but would raise prices. How prices can be raised without helping the producer we do not know, and neither do these politicians. And here is a Republican Congress undertaking to protect the better grades of cotton, to protect our staple cottons against the wholesale competition of the Government-subsidized cotton industry of Egypt, thus encouraging the production of better grades of cotton and assuring, if anything can, a native supply of the fine cottons essential to the making of airplane cloth—a Republican Congress undertaking to make it possible for whole sections of the South to enjoy the prosperity they of right should have, and Southern men, elected by Southern men, stand up and vote that their neighbors shall not have this prosperity. It is madness, sheer madness.

They mouth that England is free trade. Why, England has prohibited imports of dyes and the Government is about to pass through Parliament an anti-dumping bill, a preservation-of-key-industries bill that make the American protective tariff measures look like the efforts of a lot of schoolboys. Thirty-three and one-third per cent is to be the British impost, under British valuation, and if that is not sufficient and imports are offered at less than cost of British production, causing, or even threatening to cause, unemployment, there is additional protection. Australia, the American trade representatives report, under a new protective tariff is witnessing a new birth of prosperity. What she is buying now from America is the machinery with which to build her own factories, which are arising all over the country.

They tell us that the emergency bill penalized Germany by its provision relative to depreciated exchanges. But they do not tell us that the German Government, by control of the exchange, has deliberately brought it about that the mark has two values—one at home and one abroad—that the home value of the mark is about 8 cents and the exchange value 2 cents. This means that Germany has erected, through this exchange differential, the most formidable protective tariff against imports ever erected by any nation in history, while it at the same time affords her manufacturers an export bonus so large as to nullify any tariff or impost that has been considered by Congress. What free traders are calling a prohibitive tariff against Germany is not even an adequate tariff.

The record shows that rice can be shipped from New Orleans to a European port, thence back to New York and a short way into the interior at a freight rate less than the direct rate from New Orleans to the interior point. Mr. Hoover stated in Washington last week that grain could be shipped from Argentina to New York at about one-third the cost of shipment from St. Louis to New York, and that the granaries of the nation will be translated to foreign shores unless there is a change. That is the sort of competition the American farmer is meeting. Were production costs identical, his Argentine competitor or Egyptian competitor could beat him to the market on transportation costs alone. And yet, a group of Southern representatives in Congress, under the tutelage of Mr. Kitchen, advance the proposal that by legislation foreigners should be permitted to retain this advantage, and must not be interfered with in their rape of American prosperity!

They tell us that there are foreign debts to be paid. Aye, Europe would gladly give ten billions, or twice ten billions, for free access to the American market. We spent several times the sum ourselves to prevent foreign domination of our economic policy, to prevent Germany, among other things, from making the United States her India for exploitation. Germany victorious would have compelled the United States to have free trade—with Germany. If Germany defeated could get it, she surely would not have lost the war. "I do not think," says one of our ablest Senators, "that we shall ever collect the ten billions—certainly not within my lifetime—but if the price of collection is the surrender of American markets to foreign producers, then kind destiny forbid that we ever collect."

No tariff ever protected and made prosperous a single industry alone. The reverberations of the prosperity of the tinplate industry, to illustrate, were heard in the farthest hamlet. If agriculture recovers something of its buying power as a result of the emergency bill, the effect will be felt in every industrial center. The makers of iron and steel will feel it, the builders of phonographs, the doctors and the dentists, and many who now are jobless, with naught to buy anything at any price, will have the wherewithal to buy much at honest prices. Prosperity which at a given point touches the placid water of industry, as a pebble thrown into a lake, sends its broad circles, in widening magnitude, until the waves touch on all the shores of national endeavor, electrifying and inspiring them.

Free trade is the appeal of poverty to the throne of slovenness. It is events governing man, instead of man governing events. "Let nature take its course," cried the primeval man, as he glued himself to a limb in time of storm or night. But his neighbor fashioned himself a house. The one survived in his descendants and the other has monkeys for his posterity. Civilization is the result of the application of brain power to existence—and soul power. The first man who built a house erected a barricade for its protection. The more highly civilized a nation, the more essential is the protection of the civilization—against armed assault, against fatty degeneration of the heart, against the flood of cheap products which are invariably burled at it.

It is for us, including the South, to accept our destiny—our destiny of high standards of living, our destiny of prosperity, our destiny of acres so vast that within ourselves we can support ourselves in all essential things. We need not leap into the morass and permit others to build their prosperity on our dead bodies; we hold the light upon the heights showing them the way out. It is our solemn duty to keep curselves prosperous, not to bankrupt ourselves in works of supererogation. For it is true now, as it was true of old, that "if any provide not for his own, and specially for those of his own house, he is worse than an infidel."

Shall the South do less for the South than India does for India?

#### A SAMPLE OF OPTIMISM.

THE Gulf States Portland Cement Co. of Birmingham, Ala., has sent the following to its customers:

"As I hop out of bed these bright spring mornings and look through the window at the trees and shrubs pushing forth their buds and young leaves, I am impressed with the fact that Nature is extending herself for the business of the summer.

"Nature has confidence, and is always an optimist."

## Socialistic Theorizing and Some Concrete Facts—Applied Socialism Will Not Stand the Test of Time.

PROBABLY the most significant thing in connection with the debate between Prof. Jacob H. Hollander of Johns Hopkins University and Scott Nearing, Socialist at large, at the Lyric Theater, Baltimore, on Tuesday last was the fact that some 3500 persons paid, and paid well, for listening to the argument. To quote the language of Dr. Hollander, "while the Socialists have not succeeded in socializing capital, they have succeeded in capitalizing socialism.'

As a debate the affair was profitless. It is, in fact, doubtful if any debate can be worth while when the point at issue is so susceptible of positive proof.

It must be accepted that the world has grown under capitalism into its present condition of civilization from barbarism. Even the Socialist concedes that truth. Mankind in repeated attempts at socialism in a concrete and practical form has failed utterly and returned to eapitalism as the only form of policy possible in a world still far from perfect.

From Plato's ideal "Republic," down through the Utopia of Sir Thomas More, the New Atlantis of Bacon, a "Voyage to Icaria" of the Frenchman Cabet, Bulwer Lytton's "Coming Race," the idealized predicate was the same, a perfect race living under perfect conditions. Within our own history from colonial times onward there have been many attempts at practical applications of the utopian theories—the application of a perfect theory to an imperfect people. Each one met with disaster, varying only in the extent of the numbers involved,

Daniel J. Ryan, former Secretary of State of Ohio and vicepresident of the Ohio State Archaeological and Historical Society, has collected and presents in pamphlet form a comprehensive list of the socialistic communities which have failed in the United States. The story this list tells is possibly as irrefutable a reply to socialistic theorizing as can be adduced. As Mr. Ryan points out, "there never has been any socialistic community that was a success, or existed for any period of time, except it was as a purely religious community, based on no property, no family, no civic ties."

Says Mr. Ryan:

"The United States in the first half of the nineteenth century was a fertile ground for isms of all kinds. Its free institutions afforded a planting ground for the seeds of all sorts of doctrines and philosophies. During this period there were transplanted from France and England visionary projects, attempting to carry out the socialistic ideas embodied in the literature of centuries Cabet, the French author of Icaria, in 1848 contracted for a million acres of land in Texas, and planted thereon 'Icaria,' the city and community of his dreams. The individualistic senti-ment of humanity that rests in every human heart broke loose in Icaria, the result of which was that after disappointments, harsh experience, bitter dissensions, the experiment was an utter failure. Cabet himself was expelled from the society. It struggled on however, in one form or another until 1895, when the last vestige disappeared.

There were two other Frenchmen who created during this period a most profound sociological impression in the United These were Compte de Claude Henri Saint-Simon, generally referred to as Saint-Simon, and Charles Fourier. In addition to these was Robert Owen, an Englishman, who stands easily as the first of this grouping of Utopians, and he is generally known as the 'Father of Modern Socialism.' The doctrines Saint-Simon were never practically applied in the States, except as under and through the influence of Fourier. The associations formed for the purpose of carrying out community life in this country came under these two divisions: the Owen movement and the Fourier movement.

"Robert Owen came to this country and commenced his experiments in socialism in 1824. This was the beginning of a national excitement which had a course somewhat like a religious revival or a political campaign. Owen was full of zeal for the improvement of society; he conceived that he had discovered the cause of its evils in the law of meum et tuum, and that a state of society where there is nothing of mine or thine would be a paradise begun. \* \* \* He resolved to proceed to the United States, and among the comparatively unperverted people, liberal institutions and cheap lands of the West to establish social communities founded upon common property, social equality and the equal value of every man's labor.

"Fourierism was introduced into this country by Albert Bris bane, father of the celebrated editorial writer of today, and Horace Greeley in 1842. Their communities were known as 'Phalanxes.' They established a community at Brook Farm, Mass., and to this community there fled for refuge many of the most brilliant minds of that day, among them being Horace Greeley of the New York Tribune, Park Godwin, a noted journalist; Charles A. Dana, afterwards of the New York Sun: Nathaniel Hawthorne, Ralph Waldo Emerson, Theodore Parker. Thomas W. Higginson, James Russell Lowell, and the two well-known Unitarian ministers, George Ripley and William Henry Channing. Outside of the anti-slavery movement there was never gathered in New England a more remarkable galaxy of leaders of human thought. Brook Farm lasted five years. It fell to pieces largely on account of the strong personalities that formed · If there is any one thing that cannot exist its control. under and is absolutely incompatible with socialism, it is freedom of expression either by tongue or pen. Cabet was wise in his plan for 'Icaria' when he forbade newspapers to exist within his

"The experiments of the Owen epoch are as follows:

"1. Blue Spring Community, Indiana; no particulars, except that it lasted 'but a short time.'

"2. Co-operative Society, Pennsylvania; no particulars.

Coxsackie Community, New York; capital 'small,' very much in debt; duration between one and two years.

"4. Forrestville Community, Indiana: 'over sixty members.' 325 acres of land; duration more than a year.

"5. Franklin Community, New York; no particulars.

"6. Haverstraw Community, New York; about 80 members, 120 acres; debt \$12,000; duration five months.

Kendal Community, Ohio; 200 members, 200 acres; duration about two years.

New Harmony, Indiana; 900 members, 30,000 acres worth \$150,000; duration nearly three years.

Nashoba, Tennessee; 15 members, 2000 acres; duration about three years.

"10. Yellow Springs Community, Ohio; 75 to 100 families; duration three months.

"The experiments of the Fourier epoch are as follows:

"1. Alphadelphia Phalanx, Michigan; 400 or 500 families, 2814 acres; duration two years and nine months.

Brook Farm, Massachusetts; 115 members, 200 acres; duration five years.

Brooke's Experiment, Ohio; few members; no further particulars.

"4. Bureau County Phalanx, Illinois; small; no particulars. Clarkson Industrial Association, New York; 420 members,

2000 acres; duration from six to nine months. Clermont Phalanx, Ohio; 120 members, 900 acres; debt

\$19.000; duration two years or more. "7. Columbian Phalanx, Ohio; no particulars.

"8. Garden Grove, Iowa; no particulars.

"9. Goose Pond Community, Pennsylvania; 60 members; duration few months.

"10. Grand Prairie Community, Ohio; no particulars."11. Hopedale, Massachusetts; 200 members, 500 acres; duration not stated, but commonly reported to be seventeen to eighteen

"12. Integral Phalanx, Illinois; 30 families, 508 acres; duration 17 months.

"13. Jefferson County Industrial Association, New York; 400 members. 1200 acres of land; duration a few months

"14. Lagrange Phalanx, Indiana; 100 acres; no further par-

Leraysville Phalanx, Pennsylvania; 40 members, 300 acres; duration eight months. Marlboro Association, Ohio; 24 members; had 'load of "16.

debt'; duration nearly four years. "17. McKean County Association, Pennsylvania; 30,000

acres; no further particulars. Moorehouse Union, New York; 12 acres: duration a "18.

few months. "19. North American Phalanx. New Jersey; 112 members,

673 acres: debt \$17,000; duration twelve years. "20. Northhampton Association, Massachusetts; 130 members, 500 acres of land; debt \$40,000; duration four years.

4191 Ohio Phalanx; 100 members, 2200 acres; deeply in debt; duration twelve months.

"22. One Mind Community, Pennsylvania; 800 acres; duration one year.

Ontario Phalanx, New York; brief duration.

"24 Prairie Home Community, Ohio; 500 acres; debt broke it up; duration one year.

"25. Raritan Bay Union, New Jersey; few members, 268 acres.

1126 Sangamon Phalanx, Illinois: no particulars.

"27. Skaneateles Community, New York: 150 members, 354 acres; debt \$10,000; duration two and one-half years.

Social Reform Unity, Pennsylvania; 20 members, 2000 428 acres: debt \$2400; duration about ten months.

"29. Sodus Bay Phalanx, New York; 300 members, 1400 acres; duration a 'short time.'

Spring Farm Association, Wisconsin; 10 families; duration three years.

"31. Sylvania Association, Pennsylvania; 145 members, 2394 acres; debt \$7900; duration nearly three years.

Trumbull Phalanx, Ohio; 1500 acres; duration two and 1129 one-half years.

Washtenaw Phalanx, Michigan; no particulars

"34. Wisconsin Phalanx; 32 families, 1800 acres: duration six

"A recapitulation of the foregoing shows this: That the communities established by the Owen Group of Socialists were as follows:

"In Indiana three, in New York three, in Ohio two, in Pennsylvania one, in Tennessee one.

"The Fourier groups were located as follows:

"In Ohio eight, in New York six, in Pennsylvania six, in Massachusetts three, in Illinois three, in New Jersey two, in Michigan two, in Wisconsin three, in Indiana one, in Iowa one. "The two groups combined were distributed as follows:

"Ten in Ohio, nine in New York, seven in Pennsylvania, four in Indiana, three in Massachusetts, three in Illinois, two in New Jersey, two in Michigan, two in Wisconsin, one each in Tennessee and Iowa.

"None of these associations lasted very long, and most of them

died before they were two years old.

"All of these experiments were based upon the common ownership of property, land and personal, as well as the common ownership of the implements of production. They involved in every instance the surrender of the rights and power of the indi-vidual to the community. This embodied the very essence of socialism which has been advocated from the philosopher Karl Marx to the agitator Eugene Debs. Thus eliminating individuality in their social life, the result was the same in every single instance; that is, failure, and these failures resulted from one or more of the following conditions: (1) lack of capital, (2) inefficiency of management, (3) dissensions among its members,

(4) looseness of the marriage tie.
"If these efforts at the common ownership of land and the instruments of production could not succeed in small communities, where they were attempted by united minds, fortified by homogeneity of purpose and spiritual elation, what would be the result of an attempt to apply the same principals to a State where strenuous opposition and perhaps physical resistance would obtain? Would these socialistic failures have been successes if they had been operated by the State? There is no reason to believe that they would, judging from the records made by the State in operating the 'tools of production.'"

They have vanished as the dew in the heat of the noonday sun. They have left behind no trace. No art, no literature, no architecture, no worth-while thing have they produced. In them for a time was found realization of the ageold dream of the idealistic mind; they have died utterly when faced by the crude practicalities of day-by-day life. When comes the dawn that marks the passing of sickness, of disease. of sorrow, of sin, of death; when all men are moral and all willing to create and share in the result of that creation; when age does not blight, and man goes forward other than as a result of struggle, then, and not till then, shall we in reason contemplate the socialistic state. But when that comes to pass it will be in Heaven.

If Hon. John Skelton Williams had told the public a year ago about the inside workings of the Federal Reserve Board, the Manufacturers Record would never have had to make its great fight against that body. He now more than confirms all we said on the subject.

#### NOT HYSTERICAL.

\*\*GOV\*\* THE statement that President Harding will retain Governor Harding as head of the Federal Reserve System will be eminently satisfactory to the financial interests of the country, but somebody will have to fetch the spirits of ammonia for the Manufacturers Record."—Charlotte (N. C.)

"Quite satisfactory, if true, to the "financial interests," but not to the business interests, the farmers, the cattle raisers and the millions thrown out of employment. It is merely a question as to whether the creators of wealth, the farms, the factories and the mines shall be subservient to the "financial interests." the great money-traders, with international affiliations, rule the country, making the real producers and creators of employment and of wealth the hewers of wood and drawers of water? On which side does the News stand?'-MANUFACTURERS RECORD.

"The News stands unequivocally on the same side as the MANU-FACTURERS RECORD, except that it has not yet seen the wisdom or the expediency of running into hysterics over the action of Federal officials who brought on a period of deflation when deflation was inevitable.

"Mr. Harding seems to have made some mistakes in judgment. Perhaps he was too hurried in getting the country back to normal; he may have used the wrong methods, and he really does seem to have made an error in plunging the country right into the midst of deflation instead of allowing it to glide into it gradually."-Charlotte News.

When the \$25,000,000,000 of values, or far more than the war cost us, was wiped out of existence; when millions of men see their families suffering for food because they are out of employment; when millions of farmers in all sections are in more desperate poverty than since the fearful days of 1892 to 1896; when a large proportion of all our factories and mines are closed and nearly 500,000 railroad freight cars are idle for lack of business, was it not time to cry out vigorously and aggressively? But never were there any hysterics displayed by the Manufacturers Record. We knew exactly what we were saying, and we said it with all the power at our command, because we knew it was the truth, and the truth must be told if we would be free from the credit shackles which brought on this wreck and ruin.

If the editor of the News will read in this week's issue the speech made by Mr. John Skelton Williams, former Comptroller of the Currency and a member of the Federal Reserve Board, he will recognize that nothing that the Manufac-TURERS RECORD said on the subject of deflation was hysterical, but that, on the contrary, we never said anything quite so strong as Mr. Williams has put the matter as he lets the light of inside knowledge in upon the subject, and shows how drastic deflation, against which he fought, has been an overwhelming disaster to the country.

#### NEW POLICIES AS SEEN BY A SOUTHERN BANKER.

LEADING Southern banker, long identified with cotton growing, in a letter to the Manufacturers Record referring to the recent conference in Washington looking to the betterment of the cotton trade, writes:

"We were greatly impressed with the national officials and thoroughly convinced that they are big men, and that they realize that relief to agricultural conditions today is a big national necessity. Had the policy they are preparing to put into force today been adopted last spring instead of the policy that was adopted, conditions would have been entirely different today. The farmer today is without markets for the crops he has produced; he is unable to obtain credits in either money or goods for producing a new crop. In fact, if he were to die and accidentally wake up in Hell (and I must think it would be a mistake if he reached that destination after bearing the sufferings that have been forced upon him here), it would require the best Philadelphia lawyer in Hell to convince him that he was not in Heaven, as the conditions would be so much better than those which he has been forced to bear in this world."

This letter is not from a man lacking in reverence or of a

realization of the meaning of the other life. He is simply a Southern banker trying to express the conditions as he sees them which were brought about by the Houston-Harding policy of deflation of credit in contrast with the brighter prospects now ahead of us by reason of the complete change which is taking place under the new Administration, in which President Harding, members of the Cabinet and Secretary Mellon are practically reversing all of the policies which were forced upon the country by the former Administration, led in financial affairs by Secretary Houston and Governor Harding.

#### REVELATIONS ABOUT THE FEDERAL RE-SERVE BOARD.

In the light of the "Williams' Revelations" of the mismanagement of the Federal Reserve Board, President Harding should certainly find some way to dismiss Gov. W. P. G. Harding of that Board and all his associates under the old Administration. It is impossible for the country to have any faith in any act of that Board so long as the old members are allowed to remain, now that the whole inside working of that secret organization has been revealed.

#### CREDIT AND THE WORLD'S TRADE.

LITTLE improvement in world trade conditions is reported by the Bureau of Foreign and Domestic Commerce. Who could have supposed that credit contraction in the United States would have had such far-flung results?—News and Observer, Raleigh, N. C.

Brother Josephus Daniels thus takes a fling at our credit contraction. But he could have answered his own question if he had followed the MANUFACTURERS RECORD during the last four years. Credit contractions in this country nearly bankrupted America and the world, for our breakdown influenced the world's business. Over and over again we warned the Federal Reserve Board that its credit deflation policy would not only bring on business chaos here, but that it would adversely influence world trade. We congratulate our former Secretary of the Navy upon thus seeing the truth.

#### The South's Need for A Protective Tariff.

Washington, April 18—[Special.]—The South is now in the throes of a serious conflict with the economic forces on one side demanding protection for their industries, and the political influences advocating free trade on the other, according to a statement issued today by John H. Kirby, president of the Southern Tariff Association, who is in Washington to attend the three-day session of his organization. Mr. Kirby, in his statement which follows in part, predicts victory for the protection forces with a resultant abolition of the traditional free-trade policies of the South:

"The action of the Democratic caucus in opposing relief measures through tariff legislation was unwise politically and unsound economically. There is a silent and tremendous conflict now going on throughout the South between the political and economic influences on national tariff policies which will end with a complete route of the free traders.

"The Southern Tariff Association considers the tariff an economic question. We are more concerned in the prosperity of the South and the development of industry than in the political fortunes of any individual or party. That just reward may attend honest toil is the end we seek.

"The South is in distress and our producers are suffering from free trade competition with the pauper labor of all the world. The misfortunes of war-stricken Europe are being visited upon us through channels of unrestricted commercial intercourse. Our working people are gravely menaced.

"Under these circumstances it is unfortunate that Southern

Congressmen should deliberately inject partisan politics into relief legislation.

"I am a Democrat, and I challenge the authority of Democratic Congressmen to commit the Democratic party to a policy of free raw materials, especially at a time when it means ruin to the South. There is no precedent to warrant such action, no condition that justifies it.

"I want to take this occasion to warn the authorized custodians of democracy that unless the Democratic party can keep the faith of the fathers and serve the people it will perish.

"The Underwood Tariff Act discriminates against the Southern farmers, and according to its author, was shot to pieces by the war and we must have remedial legislation at once to return the South to normal conditions. The Southern farmer must not be compelled to bear all the burdens of tariff levies and receive none of the benefits. Such a course is a discrimination which, to our mind, is intolerable."

#### Japanese Control Vegetable Oil Industry of China.

The Japanese became the inheritors of the vegetable oil industry in North China at the outbreak of the war, says a bulletin published by the Government Bureau of Economic Information of the Republic of China. This trade had formerly been solely in the hands of the Germans, who started it after they settled in Tsingtau. Europeans and Americans are not much interested so far, because the oils have not been pure. The Japanese, like the Germans, refine the crude Chinese product in their factories at home, and, being the nearest port to the producing districts, Tientsin is the central point of collection.

The greatest trade in North China is in peanut oil. The nut is grown extensively in Shantung and Chihli, and pressed by native methods.

The cottonseed oil is of very poor quality. Most of it is shipped to Japan, where it is decorticated and pressed.

Castor oil is in great demand for lubricating motors and aeroplanes. The farmers grow the castor plant around their farms to prevent vermin and insects.

The producing districts for linseed oil are Kalgan and Chahar. Linseed grows also in Szechuan.

#### \$15,000,000 EDUCATIONAL PROGRAM.

Methodist Episcopal Church South Will Expend That Sum in Next Five Years for New Buildings and Equipment for Schools and Colleges.

Nashville, Tenn., April 16—[Special.]—The educational program of the Methodist Episcopal Church South contemplates an expenditure aggregating \$15,000,000 for new buildings and equipment for its schools, colleges and universities during the next five years. In addition to the building fund, \$18,000,000 will be used for the endowment and maintenance of these institutions. Ninetyone educational institutions, owned and controlled by the denomination, are to share in the \$33,000,000 that the Church proposes to raise in an eight-day campaign, beginning May 29. This amount is more than the present total assets of these institutions, now estimated at about \$30,000,000. To raise this amount, it will require an average subscription of \$3 per year, for five years, for each of the 2,200,000 members of the church. Several gifts of \$100,000 have already been announced, and leaders of the movement are confident of success.

States that will share in the fund are: Alabama, \$1,785,000; Arkansas, \$1,680,000; California, \$280,000; Florida, \$805,000; Georgia, \$5,295,000; Kentucky, \$1,135,000; Louisiana, \$910,000; Missisippi, \$1,925,000: Missouri, \$1,830,000: North Carolina, \$2,380,000: Oklahoma, \$700,000; Oregon, \$105,000; South Carolina, \$1,925,000; Tennessee, \$1,365,000; Texas, \$6,190,000; Virginia, \$3,150,000; West Virginia, \$350,000. In several of the States the fund to be provided by the church is to be supplemented by additional funds from cities in which certain schools are located.

Dr. J. H. Reynolds, president of Hendrix College, Conway, Ark., is director-general of the campaign, with headquarters at Nashville, Tenn.

[From News and Observer, Raleigh, N. C., April 7.]

# **Edmonds Predicts Business Revival**

#### EDITOR OF MANUFACTURERS RECORD FORESEES MARKED BETTERMENT IN CONDITIONS.

To the Editor:

I am reminded by an editorial in this morning's News and Observer, discussing business conditions and the cotton outlook, of a letter which I wrote you last November from this point.

At this time, as your readers will possibly recall, I stated that if the deflation policy of the Federal Reserve Board was continued, we would have a continuation of the drastic liquidation and destruction of values which was then in evidence. There was nothing new in that prediction, for I had been saying the same thing over and over again since 1917, when I repeatedly warned the financial influences of this country that if, at the end of the war, they should undertake to bring about drastic deflation after several years of rapid inflation, they would bring about a fearful destruction of business and chaos in all business interests. It did not require any special intelligence or foresight to be able to make these predictions, all of which have been literally fulfilled. Every man who has followed the course of financial operations after great wars has seen that whenever the banking powers of the world bring about a deflation, they bring about at the same time panicky conditions in trade and commerce.

Our bonded indebtedness of about \$25,000,000,000 was incurred under high prices of farm products and of wages. When these bonds were issued, cotton was selling at 35 cents to 40 cents per pound, and wheat at \$2.26 per bushel, and other things in proportion. By bringing on drastic deflation in the value of products and of wages, this bonded indebtedness has, in reality, been more than doubled to the benefit of the bondholders and to the loss of the producers of the country. It will take two to three times as many bales of cotton or bushels of wheat or corn to pay the bonded indebtedness as would have been required under the high prices prevailing when the bonds were issued. The bondholders, therefore, have seen their investment practically doubled in value measured by the purchasing power of their bonds or of the interest thereon, as compared with their purchasing power at the time when the bonds were bought, while the producers have had a double burden added which must rest upon their shoulders for many years to come. Moreover, it must be borne in mind that the first movement made in this campaign was to break down the price of bonds and force the small holder to sell. There is no blacker stain upon the financial history of America than that by which the Federal Reserve Board, with Secretary Houston an active factor in it, forced the banks to call loans on Liberty bonds, thus breaking the bonds down far below the cost to the innocent bond buyer, resulting in an enormous enforced sale of bonds by small holders. While Secretary Houston and the Federal Reserve Board were breaking down prices of the bonds by making the banks call the loans on them, Secretary Houston was buying in \$2,000,000,000 for the Government and boasting of the amount that had been saved by shaving the Government's obligations to the public. In private life a transaction of that kind would have entitled the man guilty of it to a term in the penitentiary, for the Government was guilty of what, in private life, would have been justly recorded as a criminal offence against society and the innocent holders of securities forced to sell,

When this campaign was inaugurated I had a letter from one of the leading bankers of the country, defending the Federal Reserve Board for its command to the banks to call Liberty bond loans, in which he said that it would be an advantage to the country when all the small weak holdings were forced out of the banks and "into the strong-boxes of big institutions and big estates," and this voiced the sentiment of many bankers from whom I heard when I began the vigorous fight against this dishonest practice of the Government. Every pledge made by the Government and by the Federal Reserve Board and by individual banks to induce the people to subscribe for Liberty bonds was violated and trampled in the mud and mire of dishonor when the banks were forced to call these loans, contrary to their promises to the bond buyers. Under the deflation campaign, of which this was but the initial movement, the decline in value of the products of farms, factories, mines and securities has been upward of \$25,000,000,000,000, or more than the total cost of the war to this country. Moreover, the money spent on the war stimulated certain lines of industry and increased employment, and therefore was not wholly lost, whereas the \$25,000,000,000 decrease in values has been completely wiped out of existence. There is a constant attempt made to defend the Federal Reserve Board and Secretary Houston for this deflation policy, but I defy any man to give a satisfactory reason for such drastic deflation as we have had

It took us four years of rising prices, due to the war and inflation, to reach the peak of the mountain of prices, and instead of taking as much time to crawl down from the mountain top as we had taken to reach it, and thus come down in safety, the Federal Reserve Board cracked the business interests of the country on the head with a club and threw the body down into the valley below.

The situation reminds me very much of the old story, so often heard that I beg pardon for repeating it. It is said that a child was very ill with a high fever, and the only physician who could be reached was a quack doctor. When he reached the house he admitted that he could not diagnose the case and tell what the trouble was, although he did know that the child had a very high fever. He said to the mother, "I am hell on fits, and I will throw the child into a fit and cure it that way." Unfortunately, however, a combination of the fever and the fits did not work out, and the child was about to pass out of life when another physician took hold of the case and saved it.

The Federal Reserve Board saw that there was a fever of speculation running through the life of the country. It did not know how to diagnose the case nor what remedy to apply. It therefore followed the example of the quack and threw the business of the country into fits, but its remedy did not fit the case. Death would have naturally followed, and the business interests of the whole country, chaotic as they are, would have gone to everlasting smash if there had not been a change in physicians.

A new element has come into power in Washington. It is the new physician selected by a majority of over 7,000,000 American voters in protest against the policies which were then prevailing. and this new physician has already changed the treatment and given some signs of life to business interests. Governor Harding will no longer have his undisputed sway over the credits of the country. He has been given a lesson which will be helpful to the country, and in the very near future we may count with absolute certainty upon a marked improvement in business. Secretary Mellon is a competent, intelligent business man in contrast with Secretary Houston, one of the most absolute failures ever in public life in this country. The old element which controlled the Federal Reserve Board has lost its power to dominate business to its own destruction, and we shall now have an upbuilding, constructive policy which will bring about a return to normal credit conditions. Against deflation of credits there will come a marked inflation, due not so much to any actual change that has taken place in business itself, but to the determination of those who now control governmental affairs to build up business rather than to destroy business. In this change the nation may well begin to take courage. The cotton farmer who sees his crop worth scarcely one-third of the selling price at the time it was planted; the grain grower, the cattle raiser and the business man generally, who have seen the accumulation of years wiped out by a wholly unnecessary and unjustifiable clubbing of business through the deflation of credits, may take courage and thank God that the sun still shines and that prosperity will once more come back to the nation.

The call to Washington last week of Southern bankers to consult with the War Finance Corporation, Secretary Mellon and Secretary Hoover marked the definite turning point in the business interests of the country at large, and especially the situation in the South.

Secretary Houston vigorously fought the revival of the War

Finance Corporation, and when a bill for its revival was passed by both houses, President Wilson, under the leadership apparently of Secretary Houston, vetoed it. Fortunately for the country, his veto was overwhelmingly overridden by a great majority in both houses. Secretary Mellon promptly put into effect the activities of the War Finance Corporation, and the result will soon be seen in a very marked betterment in business throughout the country. But it is not merely in this particular instance that good has been done. Every influence of the old Federal Reserve Board and of the Government in breaking down credit and business is now being actively reversed.

I feel, therefore, just as safe in predicting a marked betterment in business as last year I predicted through the News and Observer the chaotic conditions which have been prevailing since then, unless the Federal Reserve Board could be induced to change its policy. There is hope for the farmer, hope for the business man, hope for the workman out of employment, hope for national advancement in the present situation, but the burden of wiping out \$25,000,000,000 in values must be carried by the sufferers, and the burden of doubling the load of our bonded indebtedness must be carried by the producers of the country until we can once more bring about rising prices for farm products and steady employment for every man who wants to work. To that good day I believe we are hastening.

Yours very truly,
RICHARD H. EDMONDS,
Editor Manufacturers Record.

Southern Pines, N. C.

# John Skelton Williams Denounces the Federal Reserve Board More Vigorously Than the Manufacturers Record Has Ever Done.\*

Williams urges more liberal policies by Reserve Board.

Says Reserve Banks have now unused lending power of fifteen hundred million dollars, or ten times as much as maximum amount national banks ever borrowed before European war.

Advocates reduction in interest rates to  $4\frac{1}{2}$  per cent on loans secured by Liberty bonds and to 6 per cent maximum on all other loans.

Has for six months been urging change in policy of restriction, and quotes letters in proof.

Board's "inertia, stiffness and concentration on trivialities are symptoms of 'bureau mania' "—aids disease affecting also other departments of Government.

Quotes Governor Harding as saying "Our deflation analogous to puncturing balloon to let out gas." Williams says sensible men bring down balloons by careful handling of valve ropes and ballast, not by driving hole in bag and precipitating collapse and ruin.

Says Board by wiser management could have saved country from a "fall so precipitate and smashing and from much of the distress and ruin through which we have been dragged, and could have made shrinkage in values more gradual and uniform and helped keep currents of commerce at more normal flow."

Recommends Secretary of Agriculture be added to Reserve Board.

Compares Reserve Board to circumlocution office described by Dickens whose purpose was to find ways for not doing things.

Deprecates extortionate interest rates charged by Reserve banks, and quotes one instance where small bank in Alabama paid 45 per cent, in crop-moving time, for use of \$112,000 for two weeks.

Instance cited of bank in New York borrowing from Reserve bank at 6 per cent and lending customer \$500,000 on collateral on basis to net lending bank about 200 per cent for six months' use of money.

It is no mere form of words when I tell you that I thank you for inviting me here to speak. I am glad of the opportunity, because eight years of experience and observation behind the scenes in the financial department of our Government have taught me much and formed for me thoughts and opinions which, if time allowed—fortunately for you it does not—I could pour out here

in a torrent of words through many hours. I venture to hope that some of these thoughts, results of what may be called expert training, may be useful, at least so far as to suggest further thought among my fellow-citizens.

I am asked to speak on "What Congress Should Do," and I shall add in advance one declaration of what I think Congress should not do. As I am out of office, and desire to stay out, you will acquit me of selfish motive when I express my strong belief that Congress should not abolish the office of the Comptroller of the Currency, as it is asked to do. Having held that post from February, 1914, to March, 1921, I am peculiarly well qualified to judge of its importance in our banking system, on the integrity and ability of which our stability and general prosperity so greatly depend. But more of that presently.

One of the things that, in my opinion, Congress should do is to make the Secretary of Agriculture, ex officio, a member of the Federal Reserve Board, and I would give him authority to deputize an Assistant Secretary of Agriculture to represent him at meetings of the Board which he may be unable to attend. This I believe to be important, even though it involves a reduction in the number of appointed members. The Secretary of Agriculture is. or should be, a man who knows closely and thoroughly the needs and condition of the farmers, the original producers, the real mainsprings of our activities and sources of our strength. are at a moment of reaction-reaction in this case in the right "Back to the farm" has meaning far wider than the return of individuals from the cities to the furrows and fields. It means that the strongest and most earnest intellect of the country is being directed to the farm and the farmer and their requirements, and has been aroused to the truth that unless there is fair opportunity and reward for the investment, intelligence and labor of the man and woman on the farm, the halting of our progress and the collapse of our power is inevitable. The agricultural interests-quiet, generally steady, inarticulate, scattered and unorganized and sometimes wasting strength and losing cause by misdirected outbreak and protest vainly vehement-has not had the power or the consideration to which its importance entitles it.

That unhappy fact is being realized now as never before in three-fourths of a century. We see the curious and apparently contradictory condition that now, when the city and town population the first time in our history outnumbers the country population, the welfare of the farmer is studied more zealously and its promotion sought more diligently than when the farmers outnumbered the urban residents five to one. The cities have been taught by strokes of adversity that they cannot fatten and thrive while there is starvation and poverty on the farms. Therefore, the presence of a direct representative of the farming people in the supreme council of the nation's financial management would be in exact accord with the trend of present-day political philosophy and economic doctrine.

If a real farmer, or a man in real sympathy with farmers, and having practical knowledge of their situation, had been on the Federal Reserve Board, perhaps his influence and representations

<sup>\*</sup>Address by former Comptroller of the Currency before the Peoples' Reconstruction League, Washington, D. C., April 15, 1921.

might have saved that body from some of the errors into which, in my opinion, it has been lead or has strayed. As you know, the Reserve Board forms and directs the policies and management of the Federal Reserve System. That system I believe to be the greatest product of financial and political genius the world has known, and the men who had the largest part in its creation and development were President Woodrow Wilson, William G. Mc-Adoo, Secretary of the Treasury Carter Glass, later Secretary of the Treasury, and at the time of the passage of the Federal Reserve Act chairman of the Banking and Currency Committee of the House of Representatives, and Senator Owen, then chairman of the Banking and Currency Committee of the United States Senate.

The theory, conception and purpose of the Federal Reserve System are as near perfection as the human mind can produce. I am earnestly sincere in declaring that it was one of the most potent means for saving this country and the world during the war, and that without it hideous disaster would have come upon us. I can recall numerous occasions during these past few fateful years when without the aid of the Federal Reserve System ruin would have been inevitable.

But no machinery can operate successfully indefinitely without intelligent supervision and direction. The finest watch must be examined, corrected, oiled and cleaned sometimes. I think one mistake of the Federal Reserve Board, of which I, officially, was a member, was in leaving the Federal Reserve machine to operate to too great an extent automatically, regardless of special and exceptional circumstances and changing conditions. By that mistake farming communities and farmers and business men and others in all parts of the country have suffered, in my opinion. I am jealous, as any conservative business man must be, of intrusive interference by Congress, or any political power, in commercial or financial affairs. Yet it seems to me some wrongs have been done and some unnecessary hardships inflicted by lack of regulation of the machinery such as Congress could require and enforce and by some changes make certain.

A primary purpose of the Reserve System is to provide for the ebb, flow and distribution of the country's supply of money to meet the legitimate needs of the people and of commerce. Generally, that purpose has been fulfilled admirably. Sometimes it has been impeded or prevented, and troubles have ensued in consequence. For instance, when abnormally high rates for money for speculative or other purposes have been made and maintained in New York, the natural result has been to draw money from sections where it was needed for productive and constructive work to where it could earn extraordinary profits from the necessities of speculators and promoters. The farmer, merchant or manufacturer in the West and South, and also elsewhere, found money scarce at the 6, 7 and 8 per cent rates he could afford to pay, because New York was offering from 10 to 30 per cent. This tends to defeat the wise and beneficent purpose of the system. I used my official powers to investigate this subject as thoroughly as possible and made some astounding discoveries. The daily rates for call money, meaning money loaned on stock and bond collateral, to be called at will, are fixed daily by from five to eight members of the stock exchange, men also actively concerned in the purchase and sale of stocks, meeting informally at the exchange or consulting over telephones. They are responsible to nobody, under no direction. Their casual, hasty decisions not only affect the prices of money and stocks there, frequently meaning disaster or gain to hundreds of individuals and interests, but tend strongly to determine the movement and prices of money and incidentally, to a greater or less extent, of wheat and other commodities for more than a hundred million people.

Perhaps it may be difficult to prevent this fixing of the daily money rate, and adoption of it, by all the banks in the financial capital of the country. The State of New York makes the sky the limit for interest on demand collateral loans for \$5000 or more. I respectfully suggest to the Congress that these burdensome and sometimes destructive rates could be largely, if not entirely, prevented by an amendment to the Federal Reserve Act which should provide that no Federal Reserve Bank shall loan money to a member bank which charges its customers as interest on any of its loans a rate in excess of which Congress may regard as a reasonable maximum rate. Many of the most successful banks in the country, both large and small, adhere closely to the interest rates fixed by law, and prosper while doing so. It has been sug-

gested that the passage of such an amendment would result in the withdrawal from the Federal Reserve System of many State banks and trust companies, which would refuse to accept such restrictions, but my answer is that I believe the system would be stronger and better off without those banks which think they cannot exist or prosper without exacting usurious and unconscionable rates for money. I also believe that even without such a law, active, vigilant, intelligent administration of the Federal Reserve System machinery could prevent or limit such conditions and methods which so greatly impair its usefulness and diminish its value.

Talking on this subject, I shall be forced to speak bluntly. I do not know that it is necessary for me to follow the recent example of another Comptroller of the Currency to regale and entertain you with colloquial conversations quite as vivid and picturesque as those he employed so brilliantly, so successfully. But it is proper for a man talking to and for men who dig their livings from the ground to call a spade a spade when necessary.

I believe Congress should so amend the Federal Reserve Act as to make it not only foolproof and crookproof, but immune from the disease which I coin a word to describe as "bureau mania." That is the mania so prevalent here in Washington, and at every other seat of government, for trusting the official machinery to work automatically, insisting on inflexible routine, refusing to recognize or imagine that the shifting and changing of conditions may require departure from established rules and precedents. It is not a new trouble. Dickens' description of the "circumlocution office" in London, written 70 years ago, reads like a photograph of one of our departments. Every civilized government has been and is hampered in every emergency by "bureau mania." Victims of it lose initiative, human sympathy and the capacity for human interest in any event or person. Their thought is compressed in fixed, uniform molds, each exactly like all the others. Emotions are diluted until hardly a trace of them remains, and faculties are congealed and atrophied.

Early in my tenure of office I learned that the national banking system cannot be properly watched, regulated and governed from Washington merely by traditions, fixed rules, form letters and "respectfully referreds." Eight thousand banks represent 8000. more or less, different personalities and conditions to be realt with. With some of them the blunders of honest men must be corrected and the ill-consequences averted with generous and gentle consideration. With others, arrogant defiance and disregard of the law, crookedness or culpable carelessness must be met by stern rebuke, and when necessary, prosecution. In my judgment, attempt to operate this vast complex system, either automatically or by a debating society of seven benevolent gentlemen, though usual bureaucratic methods, and without the direction of a vigorous, thinking, understanding personality familiar with facts and problems outside official information, would be injurious certainly disastrous almost inevitably.

That this evil of "bureau mania," that would threaten our national banking system, has already impaired the value of the Federal Reserve System I believe strongly-my belief based on practical experience and the results of actual experiment. Using my privilege as an ex-officio member, one of a total of seven members, of the Federal Reserve Board I have filed protests as strong as I could make them against failure to use the Board's power to correct or modify the wrongs and evils which I thought I could see very distinctly. I regret to say that my remonstrances and appeals seemed to create in the majority of my fellow-members the mood of an old gentlemen aroused rudely from a nap. They were more querulous than interested, seemed to be more intent on constructing a snarling retort than on considering whether there was need of reform or correction. They had started the machine to work, strictly in accord with the law, and apparently considered their duty to be to let it work along, regardless of what havoc or injustice it might cause or what unforeseen conditions might demand some tightening up here or loosening there, slowing down or oiling. The ensuing correspondence was voluminous-more than 100 pages of typewritten matter. They seemed to me to dodge and evade the main issue by making complaint that the Comptroller of the Currency's examinations of banks were too frequent or

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too infrequent, too rigid or too lax. As to that they were promptly referred to the official records for complete vindication of the methods and policies of the Comptroller's bureau under my administration. The official figures showed them that in the matter of immunity from failure, in growth, in earnings and in service rendered, the record under the last Administration was by far the best in the history of the national banking system. For example, the percentage of losses to depositors to total deposits last year was the smallest in about 40 years, except only the fiscal year 1919, when there was not one dollar's loss to any depositor in any national bank in the United States; although the number of depositors was approximately 20,000,000 and the sum total of their deposits about \$16,000,000,000.

It is obvious that the question of examination of national banks was quite irrelevant to the grave matters of which I complained in my correspondence with the Board, such as the perilous swiftness of the process of deflation, the artificial diversion to New York of hundreds of millions of dollars, sorely needed elsewhere; the huge sums advanced to certain banks for use in promotions and speculations, and the excessive and burdensome interest rates imposed upon so many banks in the West and South. The rate charged at one time by a Federal Reserve bank in one exceptional case to a small banking and farming section amounted to more than 80 per cent per annum.

Those things seemed wrong to me from my standpoint, as an ordinary working American business man, temporarily entrusted with certain official powers and duties. The majority of the Board apparently was very much more concerned over my duties than their own, and, judging from a recent letter from the Board. it saturated itself with some kind of a vague suspicion that I was trying to "establish a record" at its expense—as if I was a candidate for something. It did not seem to awake to the possibility that I might be very seriously intent upon doing something to revive and help the business of the country and make our recovery as quick and painless and comfortable as possible. In this same letter I am informed, to my great astonishment, that the Board does not perceive or comprehend the constructive suggestions I had so consistently urged, but it claims that I have confined myself to criticism of the Board. If that were true, it seems to me that the criticism should have caused thought rather than resentment; amendment, if that were found to be justified, or definite contradiction if the facts and figures would sustain it. The truth is, I have offered a series of suggestions, results of study and of conditions, some for the Board itself, others to be put before Congress, for which the Board's approval was urged.

I am giving this outline of inside events to support my contention that Congress should take action to provide against negligence, lack of ability or stubborn disregard of the needs and rights of the public by the Board or any future Board. As an illustration, I know that certain New York banks were borrowing from the Federal Reserve Bank, which means from the people of the United States, millions of dollars at 5 to 6 per cent, and lending it at from 10 to 50 per cent, and sometimes higher still.

I could, in fact, give you an instance of one extreme case where a certain large bank last summer borrowed money from its Reserve bank at about 6 per cent per annum, and about the same time loaned a customer, the head of a large manufacturing enterprise, \$1,000,000, well secured by collateral, of which loan about \$500,000 was passed on to correspondents (without liability to the selling bank) at about 12 per cent per annum, and \$500,000 of the loan retained on a basis of interest and commission which yielded the lending bank about 200 per cent per annum on its net outlay; the whole loan being paid in full in six months. When that 200 per cent transaction was referred to in a meeting of the Reserve Board, one member, to my amazement, was disposed to condone or defend it on the ground, as he expressed it, that "the banks all charge such rates, more or less." resented his imputation upon the banks of the country; and I am happy to say that his opinion cannot be sustained, for the vast majority of banks in this country of which I am imformed conduct their business on a very different plane, and would not be guilty of exacting such extortionate rates of interest as I have here referred to, which might well bring the blush of shame to Shylock's cheeks.

Moreover, the transaction referred to, being a time loan, was a direct violation of the usury laws even in the State of New York. But the penalties provided by statute were not enforcible by the Comptroller of the Currency. Action in such cases has to be brought by the borrower, but as the victims in usurious transactions are generally reluctant to bring proceedings against banks for fear of being shut off from further credit, offenders ordinarily go unpunished. In my last annual report I again urged an amendment to the Bank Act which I had recommended in several previous reports, to authorize and direct the Department of Justice to bring suit against offending banks guilty of usury—and I think the amendment should also include all banks which are members of the Reserve System—upon information furnished either through the Comptroller of the Currency or other sources. Such a law, vigorously enforced, would be of inestimable value to the country.

I think I made it quite clear to the Federal Reserve Board that certain favored institutions to which a certain prominent Federal Reserve Bank had handed out enormous sums of money were employing their funds largely in the promotion of speculations of divers kinds, and I called attention to various instances where the executive officers of certain large debtor member banks were borrowing heavily from their own banks for their speculative ventures and hazardous promotions, and were also borrowing from other banks to which the Federal Reserve Bank was advancing large sums of money.

In my last annual report to Congress, in urging an amendment to the National Bank Act to prevent bank officers from borrowing from their own banks, I said:

"Cases from time to time come to light where important banks to which are entrusted millions of dollars of the funds of depositors are found lending the funds of the bank in large sums to practically all their senior and junior officers—president, vice-president, cashier and assistant cashier—and while they are extending these large and excessive accommodations to their own officers, directly and indirectly, largely for speculative ventures, the banks are themselves borrowing heavily from the Federal Reserve banks of their district."

More than a year ago, on January 28, 1920, I warned the Board by letter against concentration of the funds of the Federal Reserve System for use in speculative operations and promotions, and expressed my strong disaproval of certain conditions to which I specifically directed their attention.

In a letter to Governor Harding, under date of February 19. 1921, I said:

"The manner in which certain New York banking institutions have borrowed enormous sums from the Federal Reserve Bank of New York at rates of from 5 per cent to 7 per cent, and have taken advantage of the necessities of needy borrowers in trying times by 'accommodating' them with time money at rates in some instances as high as 50 per cent per annum, and in at least one instance about 200 per cent per annum, is, in my opinion, uneconomic, unconscionable and barbarous, and I am not willing, as far as I am concerned, to have such operations pass unnoticed or without protest. Our Reserve Board will not hereafter be able to escape heavy public censure on the excuse that it was not advised of the details of such transactions."

The Federal Reserve Board, as I understand, claims that it is not within the duty or the power of either the Board or the officers of the New York Reserve Bank to prevent this abuse and misuse for extortionate private gain of the facilities for safety and convenience of all the people provided by the Govern-I say that if the authority does not exist, it should be provided by act of Congress. I know enough of the practical facts of banking to know that it is also always possible for a bank to restrain a borrowing customer, big or little, who is borrowing more than his share or using what he borrows for purposes improper or detrimental to the public welfare. But the instances I have cited in my correspondence with the Board prove that the Board and the Reserve banks should be given specifically the power, if they lack it, and they should be specifically required to use it.

It is useless and foolish to contend that our Government is impotent to forbid diversion of money supplies it provides so liberally through the issue of its Federal Reserve notes and otherwise to maintain general prosperity, to hinder that prosperity and enable powerful individuals to fatten their purses without risking a dollar of their own. It is indisputably true, as I have

stated, that banks have borrowed heavily from certain Federal Reserve banks, and use the funds so obtained to promote speculative undertakings of their own officers, as well as for customers, sometimes by the use of "dummies," to amounts far in excess of prudent limits, or even in the limits fixed by law. I contend, and shall continue to contend, that the duty of the Federal Reserve Board or the directors of the Federal Reserve Bank is to call imperative halt on such dangerous and unlawful habits, and if that duty for any reason is neglected, Congress should find others to assure its performance.

Many weeks ago I earnestly urged the Board to suspend the so-called "progressive" interest rates which were working serious hardships upon many small banks which could least afford the exactions imposed. My attention had been called to a little national bank in the cotton section of Alabama, which, in September, 1920, the height of the cotton-moving season, was straining its resources and credit to aid its community and assist its customers, 85 per cent of them farmers and cattle raisers. That country bank was charged by its Reserve bank, under the progressive rate, from 6 per cent to 871/2 per cent per annum. The average rate which it paid the last two weeks in September for the advance of \$112,000 was about 45 per cent. The excess interest which was charged this small bank for that two weeks' period was equivalent to more than 7 per cent dividend on the bank's capital stock for a whole year. I do not know how many other cases of extortionate interest charges there were, but there were others, and there should be none.

When my motion to abolish the progressive interest rate or limit it to 6 per cent per annum was refused by the Board, I sought to provide that in no case should a Reserve bank charge a member bank interest exceeding 10 per cent per annum, under the so-called progressive plan, in the Federal Reserve districts in which the progressive plan was still in force. But this proposition was also rejected. The "progressive" interest plan, as it has been operated in some sections, exactly defeats one of the chief and best purposes of the Federal Reserve System, which is to prevent congestion of money at the centers and scarcity in the agricultural districts when needed to gather and move crops. I thought the suggestion for a suspension or modification or reasonable limitation of the progressive rate in all districts, as well as in those where it had already been discontinued, was distinctly constructive. I think now that Congress should enact an amendment to forbid such exactions resulting from misunderstandings or bad judgment or lack of sympathy with the plight of small banks and those they serve. I am bound to say that, so far as I can judge from the correspondence, neither the burdens put on small banks in the agricultural districts nor the enrichment from Government funds of the big banks in the centers interested the majority of the Federal Reserve Board so much as the alleged too frequent or too infrequent examinations of banks by the Comptroller's bureau; my own motives in raising these annoying questions, the names of persons to whom I had given copies of my remonstance and the tremendous issue as to whether or not I should be furnished with copies of stenographic reports of certain meetings of the Board, which minutes the Board has apparently decided to keep as a profound secret-and as they have recently stated solemnly, "UNDER SEAL."

I was about to forget the other great question—the numbers of Board meetings I did and did not attend. I confess my absence from the Board (but not from the Comptroller's office) were frequent, although I probably averaged two or three such meetings per week. I really felt that I could employ my time more usefully than in attending Board palavers and in listening to discursive discussions beginning nowhere and ending in precisely the same place, conducted by eminent gentlemen. Probably our Board is not exceptional in this weakness. The New York Herald only yesterday, in opposing editorially the addition of another member to the Cabinet, described perfectly the situation as I sometimes found it.

The editorial says:

"Any man, though he be a steam engine for work and a wonder for achieving results in the world of affairs, knows how perfectly hopeless it is to get anything worth while done by a large committee. The beginning and the end of its functionings is nearly always talk. Pretty much everything in between is talk. Decision is postponed for conversation, and accomplishment is sidetracked by debates."

A great statesman gave us the axiom, "Battles have been won by fools and cowards, but never by a debating society."

I am so much of an iconoclast and so thoroughly broke to the habit of trying to do something practical that even eminence does not make futility interesting.

The intensity of the intellectual activities of these Board convocations may be judged from the fact that on February 14, 1921, I received notice that the Board on February 10, 1921, four days previous, had decided to take notice of a somewhat energetic and. I thought, important communication I kad addressed and forwarded to it, from a distance of about 25 feet, on December 28, 1920, 44 days previous. The conclusions reached by this solemn consultation was that I be asked or required to supply the Board with names of persons to whom I had given copies of my letter, so that the executive committee might be in a position to "formulate its report" to the Board.

What on earth the names or number of persons to whom I had given these copies had to do with the Board's process of incubation, or how such information possibly could effect the quality or quantity of the hatch, I never have been informed, although I very earnestly demanded in two separate letters to have it explained to me. My clear inference from all the circumstances was that if the Board had not caught rumor that eyes other than mine and theirs had seen my communication, the keen interest they began to manifest in the subject would not have been aroused. Let me add that in a letter to the Board, March I, I said frankly:

"I will be glad to have the whole of my correspondence with the Board made public, deleting such names or references as may cause individual hardships or injury."

I had also said in a previous letter "to make public this information I believe would be distinctly salutary and beneficial," and I believe the public entitled to it; but the Board shrank apparently in dismay from the suggestion. Letters I wrote the Board on February 19 and 26, 1921, would also be instructive in this connection.

A communication from the Comptroller of the Currency stating facts within his official knowledge and asking attention to serious and alarming conditions in the business world was before the Federal Reserve Board, and the Comptroller's recommendations unacted upon after 44 days. At the expiration of that time, more than twice as long as is required for the productive activities of the ordinary hen, the Board suddenly aroused, bestirred itself and responded with demand to know who else had read the Comptroller's letter, that it might "formulate a report." Even the gravity of the occasion could not hide the humorous aspects of the performance.

In all seriousness, gentlemen, I am impressed with the necessity for some amendment to the Federal Reserve Act which will awaken the Board from the inertia and stiffness and concentration on trivialities that are the symptoms of "bureaumania."

The subject on which I wrote in October last, and again in December, and which developed faint reaction in February, was of vital importance. I had begun in October to beseech for it the Board's attention. On the 18th of that month I pointed out that the decline in prices, faciliated by the policies of the Board, had become too rapid. I itemized some of the appalling shrinkage of values; for instance, loss of 500 million in wheat, to which 500 million or more is to be added since that time; from one to two billion in corn, a billion in cotton, I used these words:

"The plans and policies which have aided in bringing about deflation in the great staple commodities should be at once taken up for consideration and revised as far as may be necessary to meet present and changed conditions. If this is not done speedily, I am fearful as to the consequences which may ensue."

Three days later, on October 21, 1920, I addressed a communication to the Secretary of the Treasury, the Chairman of the Federal Reserve Board, presenting arguments, which seemed to me to be impelling, urging that some constructive measures of relief be adopted to steady the situation and ease the further shrinkage in values, which has since then taken place with such ruinous results. In that letter I said, in part:

"The strain upon the business fabric of the country is, in some respects, unparallelled, and I do feel that the time has

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come for the exercise of such salutary and constructive powers as may be at our command. \* \* \*

"The situation \* \* \* has become more aggravated of late, and unless relief can be found an increase in bank failures, I believe, will be inevitable.

"The revival of the War Finance Corporation would provide, in my judgment, a much needed steadying influence at this time."

My remonstrances, however, went unheeded.

By the end of December two more months had gone. Reports reaching me from all parts of the country increased my concern. It was then that I wrote the letter of December 28. In this I reviewed, repeated and amplified what I had said before, adding that shrinkage of additional billions had come since October. I tried to demonstrate that the welfare of the world depended upon the welfare of this country, and that the fate of this country, for the near future at least, depended largely on the policies of the Federal Reserve Board controlling the financial levers. In the letter of December 28, the following paragraphs, I think, may be interesting to you just now:

"Since my letter to you was written commercial, industrial and financial conditions have become steadily worse, and the further shrinkage which has taken place since the middle of October amounts to billions of dollars.

"I feel more strongly than ever that the welfare of the country calls for the adoption of somewhat more liberal policies on the part of the Federal Reserve Board and the Federal Reserve banks, whose powers are now more widely recognized and acknowledged than ever before.

"It is my strong belief that it is within the power of the Federal Reserve Board at this time, by the adoption of new wise, liberal and sound policies and the announcement of such policies, to instill a feeling of confidence and hope and to check the spirit of demoralization, which, unless arrested in time, may lead to disaster.

"Events, developments and conditions warn us to remember that a stoppage too sudden may be disastrous as an explosion, that an unyielding barrier thrust into the path of a runaway machine may only hasten wreckage and assure a smash which skillfully regulated guidance might prevent.

"Two months of actual experience which have elapsed since my letter to you of October 18, 1920, was written tend to intensify rather than diminish my fears for the immediate future. I am as confident of the safety and development of American business, society and Government as the most enthusiastic optimist, but it is our part to strain every nerve and apply every resource of labor, thought and self-sacrificing patriotism to avert an interval of disaster, or to make it brief and easy as may be possible.

"During the past several years I have seen many occasions where the action of the Treasury Department has distinctly prevented financial panics.

"I have witnessed other occasions where the mediation and timely action of the Treasury has ameliorated many serious and dangerous situations, and has been an important factor in checking grave losses to the business interests of the country.

"At other times the same influence has been exerted to aid directly in the stimulation and encouragement of our commercial and industrial interests.

"The part which the Treasury took in the formation of the cotton pool in 1914 is one illustration. Another illustration was the action of the Treasury in organizing the War Risk Bureau, which made possible the continuance of our export trade in the early days of the war, when cargo insurance was unobtainable elsewhere.

"The action of the Treasury in making practicable the Emergency Currency law and in facilitating and expediting the issuance of that currency in the summer and autumn of 1914 averted a financial catastrophe and prevented chaos. These illustrations could be multiplied if need be, but you are doubtless as familiar with them as I am."

The excessive rates which were being exacted by member banks to which the Reserve Bank of New York was in some instances lending lavishly were also alluded to in the same letter, as follows:

"Member banks should be given to understand that the Board disapproves and will not countenance the excessive rates which

have been in vogue in New York city and which are higher than the rates charged by banks in any other country in the world. Such rates, in my opinion, have been very damaging to the commercial and financial interests of the country, and I submit that it would be well for the Board to establish regulations to prevent the Reserve banks from lending money to member banks at 6 per cent to be passed on to customers at extortionate rates. The effect of such a regulation, I believe, would be most helpful and salutary.

"The records of this office show numerous instances of banks which have gotten large sums of money from the Reserve banks to be loaned in Wall Street for the purpose of profiting by the difference in interest rates.

"The official reports also show that in addition to the money which the New York banks were lending on call in New York for account of their correspondents and customers, the national banks in New York city this time last year had on deposit to the credit of their correspondent banks in all parts of the country approximately \$900,000,000 more, while the total sum which the New York national banks were lending, directly and indirectly, to all other banks throughout the country was considerably less than one-fourth of that sum. \* \* \*

"The important thing is to find and apply proper remedies. Perhaps there has never been a time when the business and industrial interests of the country were more deeply dependent on a sound, wise and courageous administration of our banking and financial system than at the present moment."

In the same letter, among the measures and changes in policy which I urged upon the Board were the following:

First, reduction in the rate of interest charged by Federal Reserve banks on the loans to member banks secured by Liberty Bonds from 6 to 7 per cent to a uniform rate of, say,  $4\frac{1}{2}$  per cent.

Second, suspension or modification of the progressive interest rate to 6 per cent per annum. Instances can be cited where banks have been charged 20, 30 and 40 per cent, and in one exceptional case as high as 87½ per cent, the progressive rate in that district was suspended in the previous month. I brought to the attention of the Board specific instances of suffering, and the lack of money and credit scarcity in many different sections of the country, and said:

"Such facts and conditions as have been brought so vividly befere us cannot be met with theories or removed by explanations, and should not be dealt with by vague surmises and promises of unconsidered experiments. They demand definite and energetic action, even if precedent must be disregarded, accepted rules suspended or waived and new plans and methods devised.

"The people have entrusted their welfare and interests to those of us who have been honored with public office of any degree and in any department of the Government, supposing us to be fitted for our task by knowledge, intellect and character. Our plain duty is to act as promptly and as independently of usual habits of thought as may be necessary to find and apply remedy.

"While there appears to be this scarcity of money, and of credit in the great agricultural and producing sections of the West and Northwest and in the South and Southwest, we find that individual banks in New York city are borrowing from the Reserve System, in a number of cases, more than \$100,000,000 each, and sometimes as much as \$145,000,000 is loaned there to a single bank—twice as much as the total loans some of the Reserve banks have been lending recently to all the member banks in their districts.

"The inequalities and injustice in the distribution of these funds become apparent when we analyze the uses which big favored banks in the East sometimes make of the money they borrow from the Reserve System."

Six months have now passed since I took the liberty of giving my warning to the Secretary of the Treasury and to the Board, and urged a revision of policies. Four months have gone since I supplemented that warning. In this subsequent letter I urged reduction of interest rates and increased extension of credit for legitimate business purposes to the limits consistent with prudence and the equitable distribution of our available resources. Instances illustrative of the widespread distress in the West and South, and in the East as well, and argument for such a policy of forbearance and consideration for borrowing banks as would enable them to give like treatment to individuals was drawn as strong as my ability permitted. It seemed to me something was

wrong somewhere and somehow, when, with an actual shrinkage in values of our commodities within a year of \$12,000,000,000 to \$18,000,000,000, four or five favored member banks in New York city were borrowing from the Government's reservoir of money and credit as much as 4000 or 5000 member banks in the West and South were borrowing from the five Federal Reserve banks, embracing in their respective districts in 21 great States.

I was further painfully impressed by the evidence of the official records that at the beginning of August, 1920, in crop-moving time, the national banks in New York city were lending for correspondents on so-called "Wall Street" loans for stock speculations and operations more than \$500,000,000, coaxed from banks everywhere in the country by the high rates speculators would pay. This was more than the Federal Reserve banks of Minneapolis, St. Louis, Kansas City, Dallas and Atlanta were lending to their 4000 or more member banks.

This document, my letter of December 28, 1920, to the Board, was long, elaborate, carefully prepared. I tried to make the statements of conditions, as I saw them from my inside view, vivid and energetic and the suggestions for improvement clear. The response I got, after 44 days, was that I had written something not to be acted upon, but to be reported on, when the Board knew how many persons had seen my letter, and what their names were. The Board was to determine, not how to do something, but perhaps how to formulate reasons for not doing it. "Whatever was required to be done," says Dickens, "the circumlocution office was beforehand with all the public departments in the art of perceiving how not to do it."

Governor Harding of the Board also wrote me in a general way on January 13 some comments on my letter of December 28, and said that the views expressed in his letter were also those of other members of the Board. He seemed rather more intent on rasping me, if possible, than on acting to meet the unhappy conditions existing, but did remark that the process of deflation was "somewhat analogous" to what takes place "when a balloon is punctured and the gas escapes." Taking this as a text, I urged that sensible men bring down balloons by careful handling of valve ropes and ballast, not by driving a hole in the bag and precipitating collapse and destruction. That had been the gist of my entire complaint and plea. It was impossible so far as my experience went to fasten the minds of the Board on that point. I never have to this day secured a definite denial of any material statements I have made or a solid reason for opposing any of the suggestions or recommendations I ventured to

All this has been cited to illustrate the need of some action by Congress in the interest of farmers, of the laboring men and the business men of the whole country to make the vastly important Federal Reserve Board a more elastic, more initiative, sympathetic and responsive body than it is; to put it in more direct contact with the public, and to fix its responsibility. There is no time or need here to consider details of such legislation. Among our 532 members of Congress there is brain-power enough to devise simple remedies for an obvious situation. I believe firmly that the Board by its power to regulate and increase or reduce the "supplies of funds and the interest charges on money" could have saved us from a fall so precipitate and smashing and from much of the distress and ruin through which we have been dragged. It could have made the shrinkage of values more gradual and uniform instead of violent and sporadic, could have helped strongly to keep the circulating currents of commerce at more even flow so that the losses of each producer might be offset by reasonable reduction in the cost of what he must consume. We learn by experience, and should provide that the Federal Reserve banks of the future shall have less of the characteristics of the automatic bureau and more of the activities and spirit of the wide-awake business man. believe it desirable from the standpoint of the public and of the commercial interests of the country that the membership of the Board should include at least one man of wide business experience outside of banking. The six members at the time of my resignation included, in addition to the Comptroller of the Currency, two college professors, two bankers, a lawyer and a newspaper man from Poughkeepsie. A business man of signal ability and exemplary character whose counsel would have been of great value especially in our recent experience was refused by the Senate when nominated by the President several years ago.

As is natural and proper, I offer any suggestions of what Congress should do chiefly within the limits of my own direct experiences. Along the same line I have embraced in my annual reports, including the last, a number of suggestions for legislation to cleanse and strengthen our national banking and Federal Reserve System. Among these is included the measure to give the Federal Reserve banks, under proper safeguard, more latitude and power to render aid in an emergency to member banks than is permitted under the law as it now stands. Other important changes in and additions to existing laws which my observation convinces me are needed are set forth clearly in my last report to Congress submitted nof many weeks ago, but these are not of special interest here.

I have attempted to indicate, briefly, how the Federal Reserve System might have been used, in my opinion, to lessen the difficulties with which our agricultural interests have been beset so sorely, and how it may be used in the future. It is not yet too late for the Board to face about and help.

Turning now to more general matters, let me say that from such study as I have been able to give the subject, and based upon my experience and observations, I believe it possible for the ensuing fiscal year, beginning June 30, for the present Administration to reduce the total expenses of the Government, including interest and a reasonable sinking fund on the public debt. to approximately \$3,000,000,000, and in reducing receipts raised by taxation. I believe a way should and can be found to do away with the burdensome and complicated excess-profits tax. We have been engrossed in fighting and winning a great war and in handling the immediate effects and results. The time for setting our house in order after the fray has come. I was an American before I was a Democrat, and, like every other man whose ambition is to be a good citizen. I hold the welfare of people and country far nearer my heart than any party or political advantages. Therefore, I hope most sincerely that the present Congress and Administration will complete the work of retrenching expenses and reducing taxes thoroughly and promptly.

Before closing, I will, if you will indulge me a little longer, say a few words as to present business and financial conditions, and the outlook. We are now indisputably closer to bedrock than we have been for years, and we have it within our power to hasten the time when farms, factories, mills, mixes and railroads shall again go forward at full speed. For generations past the market for steel and iron has been regarded as the thermometer of trade. The prices for these underlying basic commodities have been regarded as an index of general condition of business. At the present time this is not entirely true, for in the great depression which now exists, the most acute, perhaps, that we have experienced in this generation, owing to the heat artificially applied to the bulb of the steel thermometer, steel and iron products are still registering about 100 per cent above the pre-war basis. These artificial prices are adding enormously, directly and indirectly, to the cost of living, and I believe firmly are doing much to block the road to business resumption and prosperity.

The excessive profits still being exacted by the middleman and the retail stores are also unfair, and are delaying the needed increase in consumption and in production which must precede better times.

Like all men who think and hope for the welfare and happiness of all, I am earnestly in favor of decent hours and liberal wages for the working man, and in a fairer division of the joint products of capital and labor. But in making these adjustments there are great economic laws of which it is necessary for us to take cognizance. It is hopeless to attempt to force a railroad, or any other corporation, to continue to operate at a heavy loss and to pay one class of employes \$8 or \$10 a day, if there are hosts of men well qualified and anxious to do the same work for \$5 or \$6.50 a day.

I am an earnest advocate of the principle of the eight-hour day, which has necessarily to be modified under some conditions, but I am equally strong in insisting that service rendered shall be efficient and thorough. Let me also add that it is clear to my mind that it is far better for manufacturers and business men of all kinds to keep their mills and factories going, even if they have to operate at no profit or at a small profit. It is also sound policy

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and common sense for the working man to accept such reduction in wages as may enable his factory to continue rather than to precipitate a strike or a lock out and earn nothing.

The 12, 14 and 16-hour days, seven days in the week, which it has been charged have been up to now exacted by some great corporations are intolerable and inhuman. Eigh years ago, as Assistant Secretary of the Treasury, my duties included supervision of the Bureau of Engraving and Printing, employing then about 4000 workers, and under my instructions the Director of the Bureau arranged for operatives whose work was particularly monotonous and wearing to have a number of rest periods of, say, 10 minutes each at intervals during the day, without requiring them to work overtime for the time so taken. He subsequently reported to me that as a result of that plan the efficiency and output of that department was increased about 15 per cent—more work performed in less time.

Regardless of whatever flaws there may be in its administration our Federal Reserve System has in the past saved our country from conditions far worse than those which we are now enduring, and I believe that with the reversal of certain policies, and by the adoption of a constructive program, the Federal Reserve System could now aid enormously in restoring lost confidence and in inspiring hope and a justifiable optimism.

There has, in my opinion, been an indefensible withholding of credit in many of the producing sections of the country when sorely needed. I stated frankly at a meeting of the Federal Reserve Board not many weeks ago that a high ratio of reserve indicating useless impounding of funds in Reserve banks under existing conditions, when money is so badly wanted for the legitimate purposes of agriculture and business of all kinds, was a thing for the Board to be ashamed of rather than to boast of.

The time has come, in my judgment, when the rates of Federal Reserve banks in all districts should be reduced to a maximum of 6 per cent per annum.

On United States Government bonds purchased and subscribed for at par upon which the banks are now lending the original subscribers, the discount rate to member banks should be reduced to  $4\frac{1}{2}$  per cent with a proviso that the member bank shall reduce the rate to its customer to not exceeding 5 per cent.

Prior to the inauguration of the Federal Reserve System, according to the official reports, the maximum amount of money which the national banks of the United States had ever borrowed at any one time was not over \$150,000,000. I know it will be of genuine interest to every man in this assembly to know that our Federal Reserve banks at this time have an unused lending power of approximately \$1,500,000,000, or ten times as much as the maximum amount which all the national banks of the country ever borrowed at any one time on their bills payable or rediscounts prior to the European War.

Under such conditions as these, there is no reason why every farmer and business man in this country of good credit should not be able to obtain all the money needed for their conservative business wants—at least so far as the domestic requirements of our own country are concerned. Obviously, the question of funds for foreign trade while the world is upset, as it is at this time, is another problem yet to be solved.

Of course, you do not expect, and I do not intend. that I pour out on you any theories of government or general program of legislation, domestic and foreign. I presume you have agreed on legislation you will ask in favor of the organized farmers and workingmen of the country. I have tried to give you for your consideration and mental digestion some of the thoughts brought to me by contact with conditions.

Precisely in point with what I have been saying and as illustration of what I may call callous, if not the BRUTAL, attitude of some of our officials, let me read you a paragraph or two from the New York financial article printed in the newspaper the day before yesterday.

"From a talk I had today with one of the important officials of the Federal Reserve Bank here it appears that there is a concensus of opinion among the different governors of the Federal Reserve banks favoring a continuation of present policies despite the criticism heard from all quarters for lower interest rates and withdrawal of pressure to force payment of outstanding loans. There are three general policies which

might be adopted it was pointed out. One would be to ease up on interest rates, but that policy, with the heavy inflow of gold, it was argued, might result in a renewal of dangerous speculation and inflation. Another policy might be adopted that would result in putting on still more pressure, thus cleaning up the after-war mess in a hurry and getting it over. But if that course were adopted, it was pointed out, 'We would be a long time in picking up the pieces caused by the many forced failures.' By far the best plan, it was argued, was the one now being followed, which permits continuous, but moderate liquidation."

One policy "might" cause renewal of dangerous inflation and speculation. Another would mean a panic forced by unskillful or indifferent management of the machinery ably devised to prevent panics. It is proposed to check disease, and relieve doctors and nurses of trouble and responsibility by killing all the patients in the hospitals—a plan actually under discussion being to restore business to general sound condition by a preliminary massacre of business.

The now prevailing method is supposed to be a compromise between these two, and we are told there is a consensus of opinion among the governors of the Federal Reserve Bank to let it continue! Apparently, it has not occurred to the Board that it may be possible, by anxious and alert vigilance and careful responsiveness to daily situations and varying sectional requirements, to avoid either of the alternatives described above-delirium on one side, death on another, or a sleeping sickness as at present. The man who put an automobile on the road with steering gear set and let it run, or the doctor who failed to adapt his treatment to stimulate or retard heart action, as conditions indicated, would be liable to indictment for murder. The policy outlined in this newspaper paragraph, as obtained from a Federal Reserve Bank official, is precisely that against which I war and against which I hope all of us will war. It is the policy of setting the steering gear and letting her go, of applying the same treatment to high fever and paralysis-the bureau method of hard and fixed rules. The Federal Reserve system was not intended to be worked that way. It presupposes attention, intelligence, flexibility of thought in those who operate it. the capacity to feel and understand and to value the welfare of the country and of each of the individuals composing it as more important than official dignity, pride in an adopted policy, or blind and slavish allegiance to rules by those who first create them and then abjectly worship them.

I believe the Federal Reserve System was intended and should be used for the good of the whole people. I also believe the rural sections and agricultural interests have not been given the share of advantages and benefits they should have had, and have suffered from that denial. I know that legislation can aid enormously in assuring to those sections and interests their fair share, and can make our banks stronger and safer even than they are, which would be good for all of us. I am here to say what I think, and to share with you what I have learned, and to assure you that I shall never neglect an opportunity to use voice, energy and influence and any knowledge or ability I have for the purpose of having the protection and benefit of our wonderful Federal Reserve system, designed and constructed for all, bestowed equally and impartially on all.

#### Hydro-Electric Developments Near Completion.

Hickory, N. C., April 16—[Special.]—Eight hydro-electric plants, developing a total of over 3000 horse-power within a radius of 15 miles of this place, have been placed in operation or will be completed and running during the next 90 days, according to A. L. Berry, president of the Berry-Fortune Construction Co. Two plants are now being completed in Alexander county, and on upper Little River, 10 miles from here, the Falls Manufacturing Co. of Granite Falls is having built one of the largest of the several plants, which will be running in about 30 days.

On lower Little River the North State Cotton Mills Co. of Taylorsville is having constructed a 200-horse-power plant, to be completed in 60 days. With the completion of the Little River projects the northwest section will be well developed, but there are many other sites capable of being devoted to hydro-electric development, according to Mr. Berry, in Burke and Catawba counties. Several developments are already contemplated, and surveys are being made for another.

## \$29,000,000 in Southern Construction Activities for Week Ending April 15-Erection of Dwellings Shows Big Increase

For the week ending April 15 construction activities throughout the South as summarized from items published in the construction columns of the MANUFACTURERS RECORD involve the total expenditure of nearly \$29,000,000 in contracts actually awarded and those projects for which definite plans and initial announcements have been made, preparatory to asking bids and getting construction work actually under way. Of this amount contracts awarded involve the expenditure of approximately \$6,745,127, while the announcements concerning contracts to be awarded will necessitate an outlay amounting to \$22,001,923.

That the construction of residences in large numbers is being resumed is evident from the weekly increase in the amount of money involved in this class of construction. For the current week this classification shows a total outlay of \$968,742 for dwellings, compared with \$869,000 for the week ending April 8. Reports from the building inspector's offices in the various Southern cities shows that permits are issued each week in greater number for dwellings of all classes. The items from which the figures in this summary are compiled represent residences costing \$10,000 and over, so that the vast majority of dwellings of the character that are being erected in greatest numbers, costing from \$4000 to \$7500 each, are not included.

Aside from the enormous sums of money being expended in the construction of roads, paving and bridges, sewer improvements, drainage projects and increased water-works facilities in the various States, large sums will be employed during the coming months in the construction of school buildings and miscellaneous city and county projects that have been left undone due to war exigencies and high cost of labor and materials during last year and the period following the close of the war.

The various counties, cities and States are beginning to realize that the best and most profitable time to undertake construction projects is when labor is plentiful and materials can be obtained without any great difficulty at attractive prices and without necessitating competition against individual builders and contractors for labor and materials. By starting these jobs now work is provided for many who might otherwise be unemployed, and it has been found in a number of instances that public work can be carried forward under present conditions at greatly decreased

#### SUMMARY FOR THE WEEK.

Dwellings Apartment-houses and hote Bank and office buildings. Church buildings. School buildings. Store buildings. Store buildings. Church buildings. City and county projects. Sewers, drainage and wate Miscellaneous enterprises.	els	to be a:	racts warded. 26,987 40,950 25,000 42,500 60,000 90,000 24,986 41,700 26,000 83,800	Contracts awarded. \$241,755 70,000 165,000 302,000 713,945 158,000 2,977,982 450,000 333,225 1,083,220
		\$22,00	01,923	\$6,745,127
CONT	TRACTS	AWARDED.		
Dwelling— Baltimore, Md	\$15,000 32,500 17,000 17,500 10,000 18,000 12,755 12,000 10,000 50,000 12,000 \$241,755	Church Building Norton, Va Norton, Va Norton, Va Birmingham, Clanton, Ala. Tuscaloosa, A  School Building Kirkwood, Ga Whitakers, N. Coweta, Okla. Flat Rock, Al Columbus, Ga Clifton, S. C Neeses, S. C	Ala	24,000 28,000 40,000 150,000 \$302,000 \$34,600 75,000 30,000 10,000 25,465 58,880
Apartment houses and Hotel St. Louis, Mo	\$40,000 30,000	San Antonio. Reidsville, N. Richwood, W.	Tex	375,000
Bank and Office Buildings- Miami, Fla Miami Beach, Fla	\$70,000 \$100,000 65,000	City and Count; Charleston, W	y Project	\$713,945 \$450,000
	\$165,000			\$450,000

Store Buildings— El Paso, Tex	\$60,000	Association and Fraternal- Columbia, S. C	
Beckley, W. Va	27,000	-	
Celeste, Tex	25,000		\$250,000
Miami, Fla	36,000	Sewers, Drainage and Wat	er-
Keyser, W. Va	10,000	works-	
_		Columbia, S. C	\$7,000
	\$158,000	La Grange, Mo	147,000
		Garwood, Tex	15,000
Roads. Paving and Bridges	_	Abingdon, Va	75,000
Raleigh, N. C	\$22,400	Fort Smith, Ark	53,225
Danville, Va	140,000	Terrell, Tex	36,000
Grafton, W. Va	264,046	_	
Union. W. Va	68,243		\$333,225
Nacogdoches, Tex	51,119	Miscellaneous Enterprises-	
Cameron, Tex	25,103	Dawson Springs, Ky.,	
Sandersville, Ga	39,500	power-house	\$42,000
Cape Girardeau, Mo	25,000	Spencer, N. C., bottling	
New Madrid, Mo	257,200	nlant	8,000
Fort Worth, Tex	144,650	Miami, Fla., incinerator	32,220
Marshall, Tex	263,436	Greensboro, N. C., hos-	
Clarksburg, W. Va	122,428	pital	130,000
Springfield, Ga	10,000	Charlotte, N. C., railway	
New Madrid, Mo	22,532	station	18,000
New Madrid, Mo	19,854	Mobile, Ala., warehouse.	10,000
Newkirk, Okla	72,000	San Antonio, Tex., ga-	
New Madrid, Mo	47,730	rage	8,000
New Madrid, Mo	237,351	Dallas, Tex., sheet-metal	
Altus, Okla	46,538	plant	100,000
Muskogee, Okla	262,171	San Antonio, Tex., hos-	
Clarksville, Tenn	200,000	pital	190,000
Jackson, Tenn	198,780	Bonham, Tex., theater	60,000
Sparta, Tenn	254,240	Halifax, Va., hydro-elec-	
Sylvania, Ga	8,670	tric plant	350,000
Hattiesburg, Miss	12,075	Baltimore, Md., ware-	
Tuscumbia, Ala	30,000	house	25,000
Jackson, Miss	45,000	St. Louis, Mo., theater	60,000
Columbia, S. C	28,116	Easton, Md., theater	25,000
Wilson, Okla	60,000	Annapolis, Md., theater	25,000
-			
\$	2,977,982	\$	1,083,220

#### CONTRACTS TO BE AWARDED.

CONTRA	CIS TO	BE AWARDED.	
Dwellings—		Fairmont, W. Va	100,000
Washington, D. C Lexington, N. C Fort Worth, Tex Richmond, Va	\$12,000	Macon Ga	50,000
Lexington N C	11,000	Dyershurg Tenn	100,000
Fort Worth Toy	23,000	Macon, Ga Dyersburg, Tenn Lubbock, Tex	50,000
Pichmond Vo	36,000	Little Pook Ark	150,000
Charlotte, N. C Emporia, Va	14,000	Little Rock, Ark	
Charlotte, N. C	25,000	Atlanta, Ga	20,000
Emporia, va	17 500	Baltimore, Md	200,000
Richmond, Va	17,500	-	
Washington, D. C Washington, D. C Seabreeze, Fla	30,000		1,525,000
Washington, D. C	70,000		
Seabreeze, Fla	20,000	City and County Projects-	-
Tamna Kila	17,250	Lake Worth, Fla	\$100,000
Washington, D. C Washington, D. C	20,737	Lake Worth, Fla Greenville, S. C Bartlesville, Okla	12,500
Washington, D. C	25,000	Bartlesville, Okla	300,000
Louisville, Ky	13.000	Portsmouth, Va	29,200
Louisville, Ky	20,000		
Louisville, Ky	10,000		\$441,700
St Louis Mo	15,000		4111,000
Kansas City, Mo	10,000	School Buildings-	
Norfolk Vo	30,000	Catlettshurg Ky	\$45,000
Norfolk, Va Bluefield, W. Va	10,000	Catlettsburg, Ky Lumberton, N. C	30,000
Blueneid, W. Va		Combon Oklo	
St. Louis, Mo University City. Mo	100,000	Garber, Okla	50,000
University City, Mo	100,000	Chiton, S. C	100,000
San Antonio, Tex  Morgantown, W. Va  Jacksonville, Fla	13,000	Garber, Okla	108,000
Morgantown, W. Va	15,000	Chatsworth. Ga	20,000
Jacksonville, Fla	20,000	Jackson, Miss	35,000
Jacksonville, Fla	50,000	Raytown, Mo Fulton, Mo	50,000
		Fulton, Mo	120,000
	\$726,987		90,000
		Asheville, N. C	550,000
Apartment-houses and Ho	otels-	Boynton, Okla	80,000
St. Petersburg, Fla	\$70,000	Abbeville, S. C	100,000
Tyler, Tex	180,000	Asheville, N. C. Boynton, Okla. Abbeville, S. C. St. Joe. Tex.	50,000
Tampa, Fla	150,000	Lake City Fla	60,000
Johnson City Tenn	500,000	Lake City, Fla Quitman, Ga	100,000
Johnson City, Tenn Graham, Tex	75.000	Cape Girardeau, Mo	125,000
Coxie, Ark	65,000	Kirkeville Mo	287,000
Coxie, Ark	50,000	Manualle Me	
St. Petersburg. Fla Chattanooga. Tenn Richmond, Va		Kirksville, Mo	200,000
Dishmond Vo	100,000	Politimore Md	275.000
Richmond, Va	100,000	Farmore, Md	/ 50,000
	1 040 000	Kansas City, Mo	40,000
*	1,240,000	Elizabeth City, N. C	400.000
		Ragland, Ala	75,000
Bank and Office Buildings.	****	Washington, D. C Arlington, Fla	65,000
Athens, Tenn	\$30.000	Arlington, Fla	30,000
Hitchcock, Tex	15,000		12,500
Ardmore, Okla	400,000	Palestine. Tex. Exchange. W. Va. Salem. W. Va. College Park. Md. Georgetown. Md. Knoxville, Tenn. Chatham, Va.	75.000
Knoxville, Tenn	135,950	Exchange, W. Va	25,000
Washington, D. C.	60,000	Salem, W. Va	75,000
St. Louis, Mo	100,000	College Park, Md	105,000
		Georgetown Md.	25,000
	\$740,950	Knoxville Tenn	40,000
	********	Chatham. Va	50,000
Church Buildings-		Charles Talling	00,000
Little Rock Ark	\$150,000		3,542,500
Okarche Okla	35,000	Store Buildings-	0,012,000
Bristol Va	35,000	Fort Worth Toy	\$20,000
Okarche, Okla	35.000	Fort Worth. Tex Richwood, W. Va Washington, D. C	30,000
Rirmingham Ala	100.000	Washington D C	
Louisville Kv		Washington, D. C	10,000
Charlette N. C.	20,000	NOTTOIK. VA	10,000
Charlotte, N. C	100.000	Rienmond, Va	100,000
Statesville, N. C	40.000	Richmond, Va	70,000
Ardmore, Okla	275,000	Richmond, Va Richmond, Va Clarksburg, W. Va	20,000
Gate City. Va Norfolk, Va	30.000	_	
Norfolk, Va	35,000		\$260,000

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scellaneous Enterprises- Kaw City, Okla., gas plant  Oklahoma City, Okla., laundry Richmond, Va., belt plant Alpine, Tex., lumber plant  Jallas, Tex., building materials  Norfolk, Va., park im- provements  darrero, La., soap plant three Rivers, Tex., bot- tle plant  Kansas City, Mo., or- phan's home  Saltimore, Md., falling station	\$16,80 100,00 25,00 50,00 17,00 100,00 25,00 7,00
Kaw City, Okla., gas plant  Oklahoma City, Okla., laundry  Richmond, Va., belt plant  Mipine. Tex., lumber plant  Jallas, Tex., building materials  Norfolk, Va., park improvements  Jarrero, La., soap plant  Chree Rivers, Tex., bottle plant  Kansas City, Mo., orphan's home  Saltimore, Md., falling station	\$16,80 100,00 25,00 50,00 17,00 100,00 25,00
Oklahoma City, Okla., laundry. Richmond, Va., belt plant Mipine, Tex., lumber plant Dallas, Tex., building materials Ovorfolk, Va., park improvements farrero, La., soap plant Chree Rivers, Tex., bottle plant Cansas City, Mo., orphan's home Baltimore, Md., falling station	100,00 25,00 50,00 17,00 100,00 25,00
laundry Richmond, Va., belt plant Alpine, Tex., lumber plant Dallas, Tex., building materials Norfolk, Va., park im- provements Marrero, La., soap plant Chree Rivers, Tex., bot- tle plant Cansas City, Mo., or- phan's home. Saltimore, Md., tanks Baltimore, Md., filling station	25,00 50,00 17,00 100,00 25,00
Richmond, Va., belt plant Alpine, Tex., lumber plant	25,00 50,00 17,00 100,00 25,00
Alpine, Tex., lumber plant Jallas, Tex., building materials Norfolk, Va., park improvements Jarrero, La., soap plant three Rivers, Tex., bottle plant Lansas City, Mo., orphan's home. Saltimore, Md., tanks Saltimore, Md., filling station	50,00 50,00 17,00 100,00 25,00
plant Dallas, Tex., building materials Norfolk, Va., park im- provements darrero, La., soap plant three Rivers, Tex., bot- tle plant	50,00 17,00 100,00 25,00 50,00
Dallas, Tex., building materials  Norfolk, Va., park improvements darrero, La., soap plant three Rivers, Tex., bottle plant.  Cansas City, Mo., orphan's home.  Baltimore, Md., tanks Saltimore, Md., filling station	50,00 17,00 100,00 25,00 50,00
materials Norfolk, Va., park improvements darrero, La., soap plant three Rivers, Tex., bottle plant tansas City, Mo., orphan's home saltimore, Md., tanks saltimore, Md., filling station	17,00 100,00 25,00 50,00
Norfolk, Va., park improvements Harrero, La., soap plant Chree Rivers, Tex., bottle plant Lansas City, Mo., orphan's home Baltimore, Md., tanks Baltimore, Md., filling station	17,00 100,00 25,00 50,00
provements darrero, La., soap plant three Rivers, Tex., bot- tle plant	100,00 25,00 50,00
darrero, La., soap plant three Rivers, Tex., bot- tle plant	100,00 25,00 50,00
Chree Rivers, Tex., bot- tle plant	25,00 50,00
tle plant	50,00
Kansas City, Mo., or- phan's home	50,00
phan's home	
Baltimore, Md., tanks Baltimore, Md., filling station	
Baltimore, Md., filling station	0,00
station	
	18,00
cherokee, Okla., electric-	
lighting plant	60,0
Vheeling, W. Va., power-	
house	50,00
shop	150,00
pringfield, Mo., refinery	100,00
enton, Tex., park im-	
provements	75,00
t. Petersburg, Fla., fur-	40.00
former La lumber	10,00
nlant	200,00
ouisville. Kv., ware-	200,00
house	20,00
sheville, N. C theater	150,00
roy, Ala., orphanage	75,00
ter	250,00
aston. Md., warehouse.	40,00
etersburg, Va., ware-	
house	30,00
altimore, Md., planing	15,00
шш	10,00
\$1	.683,80
	it. Louis, Mo., machine shop pringfield, Mo., refinery penton, Tex., park improvements t. Petersburg, Fla., furniture plant. conroe, La., lumber plant coulsville, Ky., warehouse sheville, N. C theater roy, Ala., orphanage harleston, W. Va., theater conston, Md., warehouse etersburg, Va., warehouse altimore, Md., planing mill

nd building projects as summarized weekly from the construction columns of the MANUFACTURERS RECORD is substantiated by the building permits statistics for representative Southern cities for the month of March, the valuation of which shows a substantial gain over the preceding month. Moreover, the big increase in March activities over February follows an equally marked increase over the January valuation.

During the month of March building permits issued in 63 cities of the South had a total valuation of approximately \$24,558,606. A comparison of figures from 58 cities for the months of March and February shows a valuation of \$22,097,486 and \$18,057,958, respectively, which represents an increase of more than 20 per cent. The valuation of building permits issued during the month just closed averages about 20 per cent less than the valuation for the same month in 1920, but the building operations are practically the same, since the 20 per cent decrease is easily offset by the increased cost of construction work in 1920 over the present year.

The percentage of residence construction continues to increase rapidly, and far exceeds that of last year. Reports from the various cities, however, indicate that residence construction will not be under way at full stride for several months yet, although the number of residences under construction and for which permits are issued continues to increase almost daily in the South and Southwest.

Throughout the country there were 25 cities that issued building permits during March, with a total valuation of more than \$1,000,000 each, and in this number were included seven Southern cities, as follows: Atlanta, Baltimore, Dallas, Kansas City, Richmond, Oklahoma City and Washington, D. C. Dallas building permits increased from \$1,269,710 in February to \$1,503,349 in March, while Richmond increased to \$1,062,911 from \$647,616 in February. Similarly, Kansas City building permits' valuation increased from \$598,850 in February to \$1,037,900 during the month just ended. The valuation of permits issued in Washington was \$1,714,284, as compared with \$626,026 for February, and in Atlanta the total value of March permits was \$1,094,624, compared with \$553,623 for February. Baltimore permits for March had a total value of \$2,336,964, compared with \$4,086,640 for February, during which month the permit was issued for a 17-story office building for the Standard Oil Co costing \$1,500,-000. Building permits issued in Oklahoma City during March numbered 347, and had a total valuation of approximately \$1.028.487.

#### BUILDING PERMITS STATISTICS.

	Ma	rch —	Febr	ruary-
	No. of permits.	Estimated cost.	No. of permits.	Estimated cost.
Alabama	roe	8500 100		
Birmingham Mobile	506 27	\$700,106 234,450	502	\$462,520
Montgomery	50	234,450 38,114	84	42,906
Little Rock	287 27	364,275 50,335	173 21	185,070 50,355
District of Columbia Washington	734	1,714,284	450	626,026
Florida	000			
Jacksonville	293	360,470 396,700	246 156	488,417 199,700 304,779 196,100 287,355
Pensacola	99	158,480 271,425	78	304,779
St. Petersburg	164 145	271,425 571,562	117	196,100
Georgia	210		221	
Atlanta	350 184	1,094.164 103,233	223 121	553,623 49,336
Augusta Macon	73	59,141	62	113,824
Lagrange	9	23.850	6	23,850
Savannah	53	132,600	50	85,480
Kentucky Covington	76	108 775	31	40,400
Lexington	104	108,775 149.995	30	19,090
Louisville	352	149.995 542,750	153	404,950
Paducah	17	6,980	1.0	213,650
Louisiana New Orleans	277	620.132	174	819,056
Shreveport	259	288,785	200	220,195
Maryland Baltimore	1.515	2.673.720	858	4,086,640
Cumberland	58	225,680	23	25,400
Mississippi Meridian	15	61,943	5	3,610
Missouri	441	1 007 000	311	598,850
Kansas City Springfield	99	1,037,900 97,710	64	34.350
St. Joseph	110	61.180	46	44,300
St. Liouis	1,079	974,405	614	714,845
North Carolina Asheville	113	111.789	54	89,280
Charlotte	53	110,375	25	178,900 106,415
Greensboro	75 25	199,000	26 14	
High Point Raleigh	36	50.758 70,000	14	24,600
Wilmington	14	31.400 236,735	15	35,300 168,843
Winston-Salem Oklahoma	136	230,130	65	100,043
Enid	39	122,500	32	96.125
Muskogee	43	130,900	11	15,310
Oklahoma City	347 48	1,028,487 169,900	44	219,850
Okmulgee Tulsa	231	770,600	171	644,150
South Carolina				-
Charleston	47 105	200.358 130,615	48 79	216.906
Greenville	70	142.445 79,820	59	82,915 85,285
Columbia Greenville Spartanburg	***	79,820	40	19,390
Tennessee Chattanooga	214	118,649	164	419,649
Memphis	263	631,440 278,743		
Knoxville	81	278,743	73 233	221.981
Nashville Texas	337	137,308	600	130,903
Dallas	474	1,503.349	338	1,269,710
El Paso	165 484	527,553 103,469	97 362	239,595 133,487
Houston	644	751.311	476	501,273
Fort Worth San Antonio	243	450.810	143	256,355
San Antonio Waco	342 49	543,245 111,268	29	49,170
Virginia			-	
Lynchburg	106	26,125 465,269	10 62	15,675 420,444
	194	1.062.911	130	647.616 68,700
Norfolk	194			00 800
Norfolk	125	1,062,911 182,250	70	68,700
Richmond	125			
Richmond	125	368.078	82	256,907
Richmond	125			
Norrolk Richmond Roanoke West Virginia Charleston Huntington	125 148 263	368.078 467,572	82 97 67	256,907

Business men of Quincy, Fla., have organized the Gadsden County Chamber of Commerce, and application will be made for membership in the Chamber of Commerce of the United States and the Mississippi Valley Association. E. M. Collins is

#### Seven Southern Cities Report Total of More Than \$1,000,000 Each in Building Permits for Month of March.

As an indication of the rising tide of construction activity in the South it is worth while noting the fact that for the month of March seven large cities in this section reported a total of more than \$1.000,000 each in building permits.

A total of 4055 permits were issued, with a valuation of approximately \$10,114,575. Baltimore permits were highest in value, amounting to \$2,673,480 for 1515 permits. Washington. D. C., ranked next, having issued 734 permits, with a total valuation estimated at \$1,714,284. Next in order was Dallas, Tex., with 474 permit, representing an ultimate expenditure of \$1,503,340. Richmond, Oklahoma City, Atlanta, Ga., and Kansas City, Mo., all had valuations slightly above the million-dollar mark.

St. Louis, Mo., closely approached the million-dollar mark, there being issued in that city during March 1079 permits, with a total value of \$974,405. Tulsa, Okla., permits numbered 231, with a value estimated at \$770,610. Houston, Tex., issued 644 permits, representing an outlay of \$751,311.

A total of 474 building permits was issued during the past month in Dallas, Tex., having an estimated value of \$1,503,349. This total included 286 residences, costing \$952,925; 33 business houses, \$278,650; three church buildings, \$85,000; one rectory, \$50,000; 108 additions, \$110,089, and 44 outbuildings, \$26,685. February permits numbered 275, with a total valuation of \$589,808.

Permits issued in Washington, D. C., during March had a total valuation of \$1,714.284, and numbered 734. This included brick construction as follows: One hundred and ninety-seven repairs to building, \$158,645; 60 dwellings. \$519.900; 84 garages, \$120,605; one apartment-house, \$50,000; two church buildings, \$490,000; two office buildings, \$100,000; 11 stores, \$51,000. Frame construction was as follows: Seventy-eight repairs, \$15,955; 42 sheds, \$2200; 12 garages, \$3010; 27 dwellings, \$111,910; one store, \$1500. The remainder was made up of miscellaneous tile, concrete and metal construction. February permits numbered 450, with a total valuation of \$626,026.

In Richmond. Va., 194 permits with a valuation totaling \$1,-062,911 were issued during March. This included 28 brick dwellings, \$222,500; 19 frame dwellings, \$95,210; three brick stores, \$21,200; one bank building, \$400,000; one undertaking establishment, \$60,000, and one apartment-house, \$55,000; one garage. \$45,000; 12 private garages, \$12,000, and one plant, \$3500. Alterations and improvements included: Twenty-three brick dwellings, \$10,504; 51 frame dwellings, \$17,373; 9 brick stores, \$11,995; bank building, \$40,000; hotel, \$10,000; four churches, \$51,100. and two office buildings, \$8400. During the preceding month 130 permits having a valuation of \$640,616 were issued.

Baltimore building permits for March numbered 1515 with a valuation estimated at \$2.673,480. This included in the city proper 1161 alterations, \$348,300; 182 additions, \$222,700, and new improvements. \$1,186,700. In the annex new improvements amounted to \$356,500; 147 alterations to \$44,100, and 25 additions, \$69,800. Itemized, the new improvements included: One hundred and forty-six two-story brick dwellings, \$490,000; 6 three-story brick dwellings, 25 two-story frame dwellings, within the city proper, and 8 two-story brick dwellings, \$44,000; 46 two-story frame dwellings, \$225,000 in the annex. Private garages numbered 202, costing \$131,200; two library buildings, \$55,000; four-story office building, \$300,000; two-story factory, \$35,000; four-story office building, \$300,000; two-story factory, \$35,000; two-story comfort station, \$25,000, in addition to miscellaneous construction of various kinds. During February 858 permits were issued for work costing \$4,086,640.

Building permits issued in Oklahoma City, Okla., during March numbered 347 with a total valuation of \$1,028.487, which represented one of the biggest home-building months in the city's history. It is said that upwards of 95 per cent of the total represents residence construction. A recent survey shows that 304 residences are under construction already. East of the Santa Fe tracks and north of Tenth street 61 houses and five apartment-houses are being erected. West of the tracks and north of Tenth street 125 houses are under construction, 40 being completed within the past two weeks. Ten apartment-houses to house from 4 to 20 families each are under construction in the same section. South of Tenth street and including Capitol Hill and Packingtown there are 56 houses being constructed.

Building permits issued during the past month in Kansas City, Mo., had a valuation of \$1.037,900, and numbered 441. There were 121 permits for residences, and 116 for private garages. Permits were also issued for two 30-room apartments, and two 12-room apartments. The valuation for the first quarter totaled \$3,308,950, compared with \$3,239,900 for the same period last year. February permits numbered 311, with total valuation of \$598,850.

In Atlanta, Ga., 350 permits for construction of all kinds, estimated to cost \$1,094,164 were issued during last month. This included 100 frame dwellings, \$370,025; 7 apartment-houses, \$290,503; 2 church buildings, \$26,500; 12 frame business houses, \$15,275; 13 brick business houses, \$196,300; 58 miscellaneous buildings, \$30,235; public buildings, \$10,000, and 155 alterations and repairs, \$145,546. The number of permits issued in February was 223, having a valuation of \$553,623.

# Anniston Electric Steel Corporation Plans—Equipment of the Plant.

Supplementing the announcement from Anniston, Ala., of the sale of the Anniston Steel Co.'s plant in the Manufacturers Record last week, Mr. W. S. Hotchkiss, vice-president and treasurer of the Anniston Electric Steel Corporation, which has succeeded the steel company, writes as follows relative to the plans and the personnel of the new corporation:

"A standard for steel castings has been set, which will be strictly adhered to, and which standard analysis will be low in sulphur and phosphorus, with a medium content of carbon and manganese, which will make a tough and homogeneous casting easily machined. Selected scrap only will be used.

"The plant is equipped with five six-ton Herhoult electric furnaces of the most modern type, which are operated under the control of our metallurgical department, which is under the supervision of one of the best metallurgical engineers in the country.

"We are manufacturing various types of coal-mine cars, all being equipped with our special features of cast-steel wheels with Hyatt roller bearings, which gives long life to the cars, as well as ease of moving. The forge shop, machine shop, gray iron foundry, structural-steel shop, pattern shop, woodworking shop, welding and other departments of the plant, are all equipped with modern machinery and apparatus, and by summer we expect to have them filled up with production, as well as the car shops, for which we have several large contracts now pending for locomotive and car repairs.

"W. S. Hotchkiss, vice-president and treasurer, is also president of the Hotchkiss Engineering Corporation of Memphis, who are manufacturers and install the Hotchkiss balanced draft gates, and who are also district representatives for Allis-Chalmers Co., B. F. Sturtevant Company, Ridgway Dynamo & Engine Co., Diamond Power Specialties, Fairbanks Company, and other representative power-plant-equipment concerns.

"G. C. Illingworth of Cincinnati was formerly district manager of the Sanford-Riley Stoker Co. and Murphy Iron Works, in addition to his business as consulting mechanical and electrical engineer.

"The geographical location of Anniston, being in the heart of the raw-material market for products such as the plant will need, together with the advantage of the water and rail freight rates, and the climate being such as to work continuously 12 months in the year, together with its easy access to foreign shipping points, such as Savannah, Charleston, Pensacola and Mobile, give it advantage over Northern plants for export trade."

#### Negotiating for Big Timber Purchase for Packing-Box Manufacture.

Jackson, Miss., April 16—[Special.]—With prospects growing brighter for the construction of an extension line of the Jackson & Eastern Railway westward from Sebastopol, Miss., to Jackson. Miss., the Quaker Oats Co., one of the largest corporations in the country, is negotiating for the purchase of 50,000,000 or 100,000,000 feet of standing timber in this State for the purpose of manufacturing boxes for packing. The company, according to reports, is desirous of securing other than pine timber because of the tendency of pine to transmit the flavor of the wood to the cereal. It is said that a number of options on desirable timber tracts have been taken.

#### LARGE CEMENT PLANT TO BE ERECTED.

#### \$300,000 Association Acquires Extensive Deposits of Raw Material in Favorable Location.

Castroville, Tex., April 14-[Special.]-W. S. Campbell of San Antonio, L. C. Ihnken and John J. Shorp of Castroville have formed the Gulf Portland Cement Association and filed a declaration of trust for a capitalization of \$300,000. It is planned by the association to build a large plant here for the manufacture of cement. According to Mr. Campbell, who is a construction engineer and has been identified with the cement industry for many years, the deposit which the association is to develop near here is one of the largest in the United States. In outlining the plans of the association Mr. Campbell said:

"The Gulf Portland Cement Association has acquired one of the largest deposits of raw material in the country. The supply seems to be almost unlimited, and our engineering reports show it to be far in excess of the 25 years usually stipulated in investments of this character. This material is unusually favorable as to its softness, location, gravity installation features for the plants and transportation. These deposits are about a mile and one-half to two miles out of Castroville and within three and one-half miles of the Southern Pacific Railroad. The plant will

"I estimate, from a survey I have just completed of these properties, that we can produce a fine grade of Portland cement at our plant at Castroville for a little in excess of 50 per cent of what it now costs the average Portland cement plant to produce There are several reasons why we can do this.

"One is that we have this deposit in a hill with a level spot ideally situated at the base for our plant. This will enable us to utilize gravity throughout the entire operation. We also have a soft formation, and it is not overlaid with earth to any extent, but comes right to the surface. We can handle our entire output of raw materials with steam shovels. Where a plant in the hard limestone country would require about 150 men, with large sums for powder, drilling, etc., we can operate our shovels with about 15 men."

#### Continued Improvement in Automotive Industry.

"All in all, the members feel that conditions in the automotive industry are quite decidedly improved, and it is the general belief that the improvement will continue."

This sentence from the official report issued this week by the Motor and Accessory Manufacturers' Association summarizes the trend of sentiment on the current adjustment and recovery of automotive conditions.

The surveys made by the association are regarded as unusually authoritative and impartial, for they are based not on generalities and hopeful expectations, but on the actual facts and financial figures reported by the members in their credit reports and con-

One of the outstanding features of this month's survey is the remarkable spirited manner in which the Cleveland district is leading the onward march of industrial recovery in the automotive field.

Releases for April and May indicate that these months will probably show marked upward trends in the swing back to normal business. The percentage for March was variously estimated, most of the figures being in the vicinity of 25 or 30 per cent, although some members stated that their output was a little more.

Most members reported that, in their opinion, the improvement was here to stay, although a few seemed to feel that the present increase was merely a spur that would not last.

Significance was seen in the reports from Michigan to the effect that Detroit factories during the month of March recalled 25,694 men. According to the survey of Employers' Association of Detroit, 6365 of these men returned to work during the week ending March 29.

On April 1 a survey conducted by the Cleveland Chamber of Commerce, in co-operation with the United States Department of Labor, indicated that automobile plants in Cleveland had 1500 more employes than they did a month ago, a net gain of 24 per cent.

#### Further Expansion Planned for Lignite Development at Rockdale, Tex.

New York, April 16-[Special.]-Announcement of plans of the Empire Fuel Co., a lignite development corporation with properties near Rockdale, Tex., was made here today by Boyd Hammond, organizer of the concern and one of its vice-presidents. The Empire Company is a consolidation of the International Coal Co., which began mining lignite near Rockdale in 1873, the Santa Fe Coal Co., and the Rockdale Coal Co. It has a capital of \$1,000,-000, and its officers are: President, Walter Miller: vice-president, Adam H. Davidson, vice-president of the Dallas Guaranty Mortgage Co.; treasurer, S. J. McFarland, vice-president of the Security National Bank of Dallas; secretary, Roy McKee, secretary of the Dallas Guaranty Mortgage Co.

The production of the Rockdale mines was 100,000 tons in 1920. Recently, three new shafts have been sunk, and the rate of production now is 200,000 tons a year. The average price is \$2.25 a ton, although recent contracts have been made as high as \$2.50 a The entire output is sold a year ahead, and the market is. according to Mr. Hammond, almost limitless, as the nearest competition is from Oklahoma mines. In one of the new shafts a 12-foot vein of clean lignite is being worked.

The fuel is used by the Santa Fe Railroad for its pumping tations, and also by the cities of Austin, Waco and San Antonio, all three of which are near Rockdale. A factor in the success of the operation of the properties is cheap labor. Mexicans are used for the most part, and there are no union troubles. The field is large and the supply sufficient for many years' operations, even on a much larger scale than those under way at present.

While only the raw lignite is sold at present, tests are being made by Arthur D. Little, Inc., of Washington, D. C., on briquetting the fuel and on its chemical treatment to increase its fuel value. Further developments of the property are expected upon the successful completion of these experiments.

#### To Erect Office Building and Warehouse.

Crane Company of Chicago, Ill., has purchased a site in New Orleans, La., and will request bids for the erection of a five-story brick building, to be used as a warehouse and office building, a small one-story pipe shop and a garage, probably within the next two weeks. Mr. Emile Weil, architect, of New Orleans, has been appointed to handle the work, and plans and specifications should be completed before the end of the month. The site purchased by the company is on Gaiennie street, between Front and South Peters, toward Erato street. Provision will be made for showrooms, distributing facilities and general sales office.

Regarding the work to be undertaken, Wm. J. Clark, vice-president, writes the MANUFACTURERS RECORD as follows: "The building which this company contemplates in New Orleans is a fivestory brick building, 100x160 feet, mill-type construction, and to be used as one of our standard branch-house buildings, which is a warehouse and sales office.

There will be a small one-story pipe shop and garage on the lot back of the main building. This comprises the proposed building operations at this point."

#### \$700,000 Bridge Across Ohio at Russell, Ky.

At an estimated cost of \$700,000, the Ironton-Russell Bridge Co. of Ironton, O., will construct a bridge of the cantilever type across the Ohio River, connecting Russell, Ky., with Ironton, O. Bids for construction will be opened about June 1, and for materials in approximately 30 days. The company was recently incorporated with a capital of \$560,000 by E. E. Fullerton and asso-

#### Building Contractors Predict Big Year for Roanoke.

Roanoke, Va., April 16-[Special.]-During the month of March new construction to cost approximately \$182,000 was begun in Roanoke, as indicated by permits issued. Practically all of the work was confined to construction of dwellings costing from \$4000 to \$7000, a total of 125 permits being issued. Building contractors here are confident that this will be the year of biggest building activities in the history of the city.

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#### Many New Church Buildings and Dwellings at Tampa.

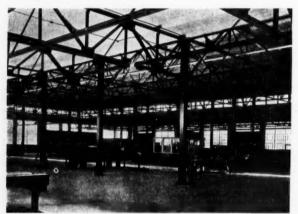
Tampa, Fla., April 18—[Special.]—The valuation of new buildings as indicated by the permits issued here from January 1 to April 9 totals \$1,182,727, according to figures obtained from the office of the Building Inspector. The largest month in the history of the office was March, when \$571,562 for building purposes was recorded. During the first nine days of April the permits issued amounted to a total expenditure of \$225,835. In addition there is a large amount of building work of all kinds under way in the outlying sections for which no permits are issued.

Everywhere there is renewed building activity. Many church buildings are being erected in various sections, and residences are going up at great rate. The demand for warehouses has resulted in the erection of many structures of this kind.

Four Tampa church buildings have just been completed, another is now under construction and work will be started on a sixth in the near future. The First Baptist Church, at Platt and Lafayette streets, the latest to be started, will cost when complete \$350,000. The old buildings on the site have been removed, and work on the foundations is progressing rapidly.

#### Large Paper Box Plant Begins Operations.

New Orleans, La., April 2—[Special.]—The new plant of the Union Paper Products Co., Inc., which is one of the largest corrugated paper box manufactories in the South, has begun operations. The plant was erected at a cost of over \$200,000, following the organization of the company last year with a capital of \$300,000. The factory building is of fire-proof construction, being of brick, with steel frame and steel sash, and has a floor space of 45,000 square feet. Special provisions are made for



INTERIOR VIEW OF PLANT.

ideal lighting and good ventilation, and locker rooms are provided for the employes that will number about 75.

The present supply of strawboard and wrapping paper was purchased abroad, but in the future the supply will come from mills at Bogalusa and New Iberia, La. The capacity of the plant is about 16 tons of raw material daily. The machinery is modern

in every respect, and includes a large 126-inch two-color press, one of the largest to be used in the corrugated box manufacturing industry in the United States.

Among the firms furnishing machinery were George W. Swift, Jr., Inc., Bordentown, N. J., corrugating, slitting and slotting and flap cutting machinery; Samuel M. Langston Company of Camden, N. J., binding machines; National Binding Machine Co., 260 West street, New York city.

The officers are Sam Ohnstein, president; Harry Goodman, vice-president; S. L. Rosenbaum, secretary-treasurer.

#### Building Activity at Danville Greatly Stimulated By Lower Costs on Material and Labor.

Danville, Va., April 18—[Special.]—A reduction in the cost of building material and in wages paid for labor have resulted in a building boom here of larger dimensions than any seen since the days of the war. A great deal of building is either going on or is contracted for, and most of it is in connection with dwelling-houses, there being little industrial building just now.

Next month the Masonic Building Corporation will open bids on the proposed Masonic Temple and office building, the plans for which show a tenestory structure on what is considered the most desirable lot in the business section of the city. The temple was wiped out by fire in January, 1920, and the first lot of bids opened proved too high. The plans have been slightly amended in order to reduce the cost of building. Working plans of the building have been sent to numerous contracting firms.

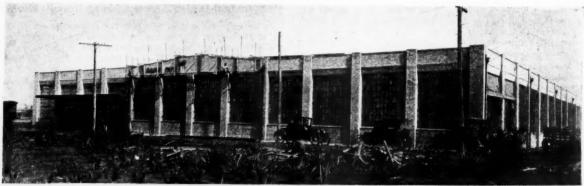
With this large building venture practically assured, the Young Men's Business Club of the city have taken up the project of building a new city courthouse to cost \$500,000. The plan is to consolidate the city hall with the courthouse, to demolish the present courthouse and to erect a strictly modern structure housing all municipal and State offices, with courtrooms and with a city jail on the roof. To furnish the money, it is anticipated that the citizens will be asked to record their wishes in a bond election to be held in August.

#### 643 New Dwellings for Shreveport Last Year.

Shreveport, La., April 16—[Special.]—According to information just compiled, 643 dwellings were erected here during 1920 at a cost of \$2,362,280, and 46 stores were built at a cost of \$458,400. The warehouses that were constructed numbered 20 and cost \$252,900. Other buildings erected included filling stations, garages, barns, sheds, churches, sanitarium, laundry, icehouse, frame schools, dormitory, etc. The total cost of all these buildings is estimated at \$5,737,720. Building permits issued during the year numbered 2284.

# Wheeling Building Permits for One Day Reach \$100,000.

Wheeling, W. Va., April 16—[Special.]—In a single day recently 15 building permits were issued for construction work of all kinds involving the expenditure of approximately \$101,036. The largest single item was a power house costing \$50,000. The remaining amount was made up chiefly of residences costing from \$4000 to \$10,000 each.



LARGE NEW PLANT OF UNION PAPER PRODUCTS CO., INC., OF NEW ORLEANS.

## Administration's Financial Forces Will Encourage and Sustain Cotton Industry, Says Comptroller of the Currency

I have come here to make a friendly visit and offer a word of cheer to the people of the South. I do not intend to tell you bankers how to run your banks. I suspect that you have had quite too much of that in the past to be to your liking. The fundamentals of banking are as old as banking. The application of the principles of banking are often necessarily different in remote parts of the country from financial centers. New York and Boston requirements are often impossible to the country banker. My mission, however, would not serve its purpose or be complete if I failed to give you my assurance of good will and frendly interest. I want to take this occasion to say to you and all of the bankers of the South that the latch-string on the door of the Comptroller's office is hanging on the outside only awaiting your neighborly and friendly pull. It is there for the country and the city banker alike. \* \* \*

It would be difficult to name an American industry that so thoroughly deserves or so safely could be extended assistance at a time of temporary stress as that of cotton production. For many decades our exports of cotton have been responsible for keeping us in secure possessions of a favorable trade balance. You people of our South produce, I believe, about 60 per cent of the entire output of the world. Without you, the civilization of the Temperate Zones would be impossible, because without you, people would be going naked, and it never has been found feasible to maintain a highly-cultured state among folks who chase about in winter time in open-work beads and diaphanous smiles. The world's shelves and warehouses are just about denuded of those goods which represent your great agricultural industry. Consumers have been more or less on an enforced strike, but they must come back into the market and they are already doing so. The continuance of the world's great and increasing demand for cotton and cotton fabrics is just as certain as the continuance of civilization itself. You may take it from me that those who are vested with some measure of authority to guide the broader financial policies of this country have a fairly accurate conception of the vital necessity to encourage and sustain the production of our cotton crop and of every other agricultural staple. They are determined that in behalf of American industry there shall be exerted whatever power and influence may be necessary to bring this vital industry back to a basis of assured prosperity. I do not want to be understood as suggesting that government can be relied upon to do the things that private enterprise, thrift and effort must do, but I am willing that you should very definitely understand me to mean that every possible support and encouragement, consistent with sanity and soundness, based on the consolidated credit and authority of American business and the

It is useless to worry now about the grists that might have been ground with water that has already gone over the dam. Not much will be gained by dwelling upon the omissions of the past, the failures to deal in proper time with the great problems that related to the restoration of peace and peace conditions in a disorganized and distorted world. It is enough for the present to say that, although indeed tardily, those problems are going to receive the mest prompt and intelligent attention that can be given to them.

American Government will be held out in this time of trial and

Among all our American staples, perhaps none is so important in international trade as cotton. There is no continent, there is no significant country that can hold itself independent of America as to its requirements of this American staple. They must all come to us. Our market is as wide as the world. Therefore our ability to sell must largely depend upon the ability of the world at large to buy. In this regard there has already been set afoot a renewed effort through instruments of the Government and also through private financial agencies, to aid in extending the larger and longer credits that are needed in order to enable foreign buyers to continue taking our products. These efforts you can be

assured will receive every feasible ad safe encouragement. I am confident that the readjustment of affairs in Europe and in the world at large gives gratifying promise of moving forward in the near future more rapidly and on safer lines than at any time since the armistice. This is particularly justified in view of recent demonstration of the solidarity of this nation with its allies on the other side. The settlement of problems connected with the indemnities assessed by the Peace Conference would be a long step toward a proper fiscal and economic adjustment in the old world. With that readjustment there will come a reduction of public burdens in all countries, freeing of industry from those forms of Government control that have been holding it, and the resumption of something nearer of what we think are normal conditions. This is absolutely necessary. Governments and armaments have been costing too much. We see ahead the hopeful prospects that they will presently begin to cost less and continuingly still less: that the burden of taxation on industry and production will be progressively lessened; that therefore the capacity of the people to buy and consume will increase.

From the best informed sources abroad some assurances that conditions there are improving; that the outlook for increasing trade with the United States is decidedly hopeful; that requirements for our materials are such that their satisfaction cannot be much longer postponed, if measures can be devised to enable the business to be carried on. At this point, again, I can give assurance that the utmost support will be given by the Government's financial authorities to every effort at extension of credits by which foreign trade may be developed. Of Government credits and money we have given all that can safely be permitted. The task must be handled hereafter through the processes of commercial transaction; of those transactions which represent the unceasing flow of supplies and the constant, if at times postponed, liquidation of accounts. There can be no more consideration of vast blocks of credit, to be expended, perhaps, in purchases which represent the least prospect for early liquidation. The streams of international exchanges must be clarified and invigorated. Within the limits which prudence dictates, the financial and economic system of this country must and will be encouraged to open new markets, encourage new demands, sustain enterprise wherever it gives satisfactory promise.

The national credit reservoir is still splendidly filled. It is capable of sustaining further drafts, if the streams that flow away from it can be certain of enrching, fructifying, producing—and then returning that which has been withdrawn. That is all we need to make sure that henceforward the withdrawals from it shall be for useful, reproductive, supporting purposes. This is, indeed, true of the whole world, and there is good cheer for us in the fact that the world is realizing the necessity to conserve, to utilize, to save its resources.

This is a time in which banks have opportunity to render their supreme service to the community. Through them the small surpluses of capital may be drawn together; bits that in themselves would be of no practical use for financing the country's business, and yet, that if heaped together in the form of bank deposits. would represent the differences between ample capital and financial shortage; between tight money and easy money; between business depression and business activity. I have seen a good deal of the advertising matter that banks employ, and it has often occurred to me that it makes too little appeal along this line. There never was a better time for banks to engage in educational effort of this kind. Teach the people-all the people-to understand the fundamental character, purpose, aims, services, of the bank. Induce them to keep their money in it. Billions of wasteful expenditure would be avoided every year-I say, and I mean it literally, billons-if everybody entitled to a bank account would maintain it and rely on it. Most of the money that is wasted is "loose money" from the people's pockets. It's almost unbelievable how much less is the chance of wasteful expenditure of "chicken feed" sums, if the spender is under the necessity of drawing a check before he can spend. If we could get all the people to know this, and to realize the satisfaction of saving by the simple expedient of not

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<sup>\*</sup>Extracts from address of Comptroller of the Currency D. R. Crissinger, before Louisiana Bankers' Association at New Orleans, La., Tuesday, April 19, 1921.

spending because it's easy to spend, we should have gone a long way toward restoring financial assurance.

The other day my attention was called to a letter written by a Government official that so exactly illustrated my point that I am going to quote it here. The writer said:

"I have for many years been pretty well convinced that saving money is largely a matter of habit, and people who make a good beginning at it presently discover that it is by no means impossible, and it is altogether a good thing to do. Just at this juncture in the world's and our country's affairs it is certainly one of the most useful contributions that people could possibly make to putting the world right. I do not believe there is any other way to straighten out the tangle of financial and economic concerns into which the world has been precipitated by the war, than to produce a good deal more than we consume, which means to save, and by our savings to re-establish the world's stores of working capital. I have no more earnest hope than that the public may take this lesson to heart and learn to save as, in view of our great national good fortune, they could be able to do."

I have not often seen the case for personal saving more cogently put, and therefore I have especial pleasure in telling you who signed that letter. It was a man of whom the people of the South have seen a good deal in recent time: for whom the South has given multiplied testimonies of its affection and confidence; a man who, for many years, has been the earnest and understanding friend of this great section, and who is today particularly anxious to help the South to deal with the problems that are bearing heavily upon it. He is an untiring advocate of a united America; an eloquent spokesman for a unity that shall know no sections, no ancient prejudices, no old animosities; a very evangel for the conviction that such an America, thus unified and glorified and illuminated, shall move unfalteringly forward to the helpful, unselfish and fraternal leadership of the world. Gentlemen, I have read you a letter that was written by my chief, and yours, and our country's-by President Warren G. Harding.

#### Nearly \$500,000 in Building Construction at Beckley.

Beckley, W. Va., April 16—[Special.]—According to figures just compiled, construction work of all kinds, aggregating approximately \$474,800, is now actually under way or will be started within the next few weeks in this city. This amount represents the expenditure of about \$179,800 in residence construction, and \$295,000 in business and office buildings, apartment-houses and similar structures. Since January 1 City Recorder French has issued 97 building permits for new structures, in addition to many for remodeling and repair work. Already 60 residences are now under construction, and many more will be started in the near future. It is expected that the volume of construction work will increase as the year progresses, and that before the close of summer double the present amount of work will be under way.

#### Tampa Votes \$350,000 School Improvement Bonds.

Tampa, Fla., April 16—[Special.]—By a vote of 138 to 33, the issuance of \$350,000 in bonds for school improvements was approved by Special Tax District No. 4 recently. With the issuance of the bonds an extensive building program will be started, providing for a \$100,000 addition to the Hillsborough High School, a new Ybor City school in Clarkson subdivision, to cost \$75,000; new building on the present site of Robert E. Lee School, to cost \$50,000; addition to the Hyde Park Grammar School, costing \$50,000; addition to the George Washington Junior High School, costing \$20,000; school in West's division, costing \$30,000.

#### Miami Banks Prosper-Much Building Planned.

Miami, Fla., April 15—[Special.]—The condition of the several banks of this city offers conclusive evidence that the financial affairs of Miami are steadily improving. One bank here has more money on deposit at present that all the banks of the city had five years ago. Total deposits of the eight banks are now over \$20,000.000.

Large building operations have been commenced, and others are planned. New hotels, a number of large apartment-houses and residences are already listed for the coming summer.

#### Contract Awarded for New Pipe Plant at Dallas.

Contract has been awarded for the construction of a new plant in Dallas, Tex., at Pearl and Corinth streets, for The Berger Manufacturing Co., with main offices at Canton, O. The principal building of the new plant will be a structure approximately 200x200 feet, of mill construction, which will cost in the neighborhood of \$100,000. All of the machinery for the new plant, which includes riveters, presses, etc., has been purchased and will be installed just as soon as construction work is far enough progressed. The plant will be used in the manufacture of culvert pipe, roofings, sidings and ceilings of metal. The MANUFACTURERS RECORD has been advised of the new work by Al. Langenbach, general sales manager for The Berger Manufacturing Co. George P. Galvin is manager in charge of the Southwest district.

#### Weekly Production of Coal.

The United States Geological Survey's ecal report for the week ended April 9 shows that the total output of soft coal in this country, including lignite and coal coked, is estimated at 6.089.000 net tons, an increase of 266,000 tons as compared with the preceding week in which there was a holiday. The output of anthracite coal for the week was 1.865,000 net tons, a pronounced increase of 708,000 tons as compared with the preceding week marking the beginning of the new coal year. Production of beelive coke continued to decline, the total output being 79,000 net tons for the week, or 8000 tons less than the previous week.

Reports received by the Geological Survey indicate that the total output of coal in the world during the year 1920 was 1,300,-000,000 metric tons, the metric ton being roughly equal to the gross ton of 2240 pounds. A little more than 45 per cent of this was produced in the United States.

#### Heavy Grain Exports From New Orleans.

New Orleans, April 18—[Special.]—The exports of grain during March from this city, according to the monthly report of the Board of Trade, increased not only over the previous month, but greatly exceeded the same month last season. Exports for the month amounted to 6,845,215 bushels, of which 3,945,584 were wheat and 2,617,054 for corn, with small amounts of oats, rye and barley.

The increase in exports of wheat over the same month in 1920 was 2,603,099 bushels, and of corn 2,550,000 bushels. The increase in rye was 222,857, but oats and barley show decreases.

#### Heavy Sugar Import Via Galveston.

Galveston, Tex., April 14—[Special.]—Since January 1 the port of Galveston has received 180,000 bags of raw sugar from Cuba, according to figures just made available by the local customs-house. Within the next week two more vessels are expected, bringing an additional allotment of 60,000 bags, which, according to local authorities, is the largest movement of sugar coming into the port of Galveston in such a short time within the past three veers.

#### Delta Plantation Purchased for \$350,000.

Memphis, Tenn., April 16—[Special.]—F. L. Saffer of Champaign, Ill., has purchased a plantation of 6400 acres in the delta of Louisiana, and has assumed control of the property, with plans for operating it this year. The transaction involved \$350,000 in properties. The Louisiana place was owned by W. A. Boone of Pontotoc, Miss.; V. A. Farr, Neshoba, Tenn., and G. C. Holland, Wynne, Ark.

#### Danville Has Good Building Month.

Danville, Va., April 18—[Special.]—During the past month nearly 100 permits were issued for construction work of all kinds, involving a total expenditure of approximately \$228,000. This amount does not include industrial buildings, but does include residences, additions and alterations and garages. Forty houses for the Dan River Mills, estimated to cost close to \$156,000, are included in the total for the month.

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#### STEEL CORPORATION NOT TO CUT WAGES.

#### Judge Gary Expresses Hope of Doing Away With the Twelve-Hour Work Day.

New York, April 18—[Special.]—The United States Steel Corporation will not reduce wages for the present, but has already abolished the seven-day week, and is willing to do away with the 12-hour day as soon as the workmen themselves are willing to accept the lower scale of pay that would be necessitated by such a change, Judge Elbert H. Gary, chairman of the board of directors of the Corporation, announced at the annual meeting today.

"There will be no reduction in wages until the cost of living has been further cut," said Judge Gary. "The board of directors will take reductions under advisement when the time seems proper and when it seems the just thing to do for all concerned."

A motion by one stockholder to increase dividends because of the existing large surplus was met by the statement from Judge Gary that the surplus did not consist of cash, but was composed of securities that could not be converted into cash at present without loss. He also said he thought it better to retain a large surplus "to put the Corporation where no harm can come to it, no matter what happens."

That this might have some bearing upon future labor troubles was suggested when the board passed a resolution saying that it would support Judge Gary in another strike, and would accept any losses sustained in maintaining the Corporation's position regarding the open shop. Previously Judge Gary had said that the open-shop policies of the Corporation would be continued. He said union organizations helped neither employe nor employer, and were run for the benefit of labor agitators. "The natural and certain effects of labor unionism," said Judge Gary, "may be expressed in three words—inefficiency, high costs."

"I firmly believe," he declared, "that complete unionization of the steel industry would be the beginning of industrial decay in this country." The chairman said he believed in Government regulation of industries, with publicity and a reasonable measure of control for the public good. He said the decisions of all governmental commissions should be subject to review by the highest courts.

He declared that clearly defined laws relating to industrial subjects, enforced with equal hand upon capital and labor, were needed, and mentioned the attacks of union labor upon the courts of the land as an indication of labor's unwillingness to abide by existing laws.

Concerning the 12-hour day, Judge Gary said: "The officers of the Corporation, the presidents of subsidiary companies and a majority of others in positions of responsibility are in favor of abolishing the 12-hour day, and for this reason, and because of public sentiment, it is our endeavor and expectation to decrease the working hours—we hope in the comparatively near future."

He described relations at present with employes as amicable.

#### Mechanical Engineers to Meet In Chicago.

The 1921 spring meeting of the American Society of Mechanical Engineers is to be held in Chicago May 23-26 at the Congress Hotel. Well-developed programs will be presented by the professional divisions of the society devoted to forest products, fuels, machine shop, management, material handling, power, railroad, and an important session will be devoted to training for industries. The Chicago committee, jointly with the Western Society of Engineers, is preparing a session on "Chicago as the Rail-Water Gateway,"

That efficiency "follows the flag" is well demonstrated in a 68-page booklet just published by the Buenos Aires office of the American Express Co., entitled "In the Plate Trade." The booklet contains a summary of the laws, regulations, tariffs and general practice of shipping operations in Argentine ports and presents in compact form much detailed and important information regarding the ordinances and practices which concern shipping operation in the River Plate ports.

A limited number of these booklets have been received by the home office of the American Express Co., at 65 Broadway, New York, for distribution to firms interested in the Argentine trade. A copy will be mailed on request free of charge by the foreign-trade department of the company at their New York address.

#### Urges Waterway Development on Broad Basis.

Chicago, Ill., April 18—[Special.]—Governor John M. Parker of Louisiana believes it is high time to start waterways development in carnest. As honorary president of the Mississippi Valley Association, which will hold its big convention in New Orleans early in May, Governor Parker issued a statement in which he declared "intelligent co-operation between inland waterways and the United States Merchant Marine will assure transportation of American products in American bottoms and enable our flag to float over every ocean."

"There is no more important question today before the American people than restoration of water traffic," continued the statement made public by association officers here. "Not only have the railroads been sup-congested and perishable freight delayed, but rates have been increased to such a proportion as to upset business and cause the farmer, the real producer, more unrest and dissatisfaction than ever in our history.

"The National Government has spent billions for railroads, but have overlooked those natural, God-given highways represented by our rivers, which offer the cheapest transportation known to mankind.

"The meeting of the Mississippi Valley Association should be attended by thinking men from every one of the 27 States of the Valley, looking to the development of our waterways and Gulf ports, and that convention should in unmistakable terms demand for national welfare and the preservation of our agricultural interests that the Government should, by prompt action and low rates of freight, enable our farmers and manufacturers to transport their products to the markets of the world. The time has come when public necessity requires millions to be spent on waterways."

H. H. Merrick, Chicago, president of the association, says the convention will take steps to protect the Valley's interest and to obtain early completion of the terminals required. It will also seek completion of navigable waterway projects on the Ohio River to Pittsburgh, on the upper Mississippi River to Kansas City, and other important tributaries, and the extension of the bargeline service on these waterways.

There will be an open discussion at the convention by delegates representing every community in the Valley. From this it is expected to build a program of general waterway development. Mr. Merrick said the association is advocating the continuation plan for the development of these navigable rivers, with a view to providing for all time proper maintenance of the transportation channels.

#### Slight Decline in Crude-Oil Production.

The American Petroleum Institute estimates that the daily average gross crude-oil production in the United States for the week ended April 9 was 1,258,910 barrels, as compared with 1,263,370 barrels for the week ended April 2.

The estimated daily average gross production of the Mid-Continent (light oil) field, including Oklahoma, Kansas, North Texas, Central Texas and North Louisiana, for the week ended April 9 was 648,330 barrels, as compared with 650,150 barrels for the preceding week, a decrease of 1820 barrels.

The estimated daily average gross production of the Gulf Coast (heavy oil) field was 107.530 barrels, as compared with 111.620 barrels for the preceding week, a decrease of 4090 barrels.

The combined daily average gross production of the Southwest field was 755,860 barrels, as compared with 761,770 barrels for the preceding week, a decrease of 5910 barrels.

Oklahoma-Kansas shows a daily average gross production of 373,780 barrels, an increase of 3230 barrels; North Texas shows a decrease of 2700 barrels; Central Texas, a decrease of 510 barrels, and North Louisiana, a decrease of 1840 barrels.

The estimated daily average gross production of the Wyoming and Montana field was 54,050 barrels, as compared with 53,100 barrels for the preceding week, an increase of 950 barrels.

Truck growers of Calcasieu parish, Louisiana, have formed at Lake Charles an organization to promote the use of home-grown vegetables in that district. It is known as the Fruit and Truck Growers' Co-operative Association. R. S. McCook of Lake Charles is secretary.

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# THE IRON AND STEEL SITUATION

#### Steel Prices Equalized and Stabilized.

Pittsburgh, Pa., April 18—[Special.]—Steel prices are again equalized, as between the United States Steel Corporation and the independents, by the independents slightly advancing their prices in most cases and the Corporation reducing its prices. The advances by the independents were all made within a very few days.

It is uncertain which was cause and which was effect, whether the independents advanced their prices because they believed the Corporation was going to reduce and would go down to the lowest prices named by independents, or whether the Steel Corporation made its reductions because it found the gap had been narrowed and it would not require a great deal to put the market on a uniform level again.

In bars, shapes and plates the independents were quoting 2 cents on bars and 2.10 cents on shapes and plates in carload lots, and were willing to make concessions from these figures for larger lots. They advanced to 2.10 cents for bars and 2.20 cents for shapes and plates, the first two companies to announce advances being the Republic Iron & Steel Co. and the Midvale Steel & Ordnance Co., the latter being the concern which started the general operation of price-cutting by independents, about the first of last February. The Steel Corporation, which had been maintaining the Industrial Board prices, then reduced to the new figures, putting bars down from 2.35 to 2.10 cents, shapes from 2.45 to 2.20 cents and plates from 2.65 to 2.20 cents.

On unfinished steel the Steel Corporation reductions are: Billets, from \$38.50 to \$37; sheet bars and small billets, \$47 to \$39; slabs, \$41 to \$37; rods, \$57 to \$48. On these products there was no defined market.

The prices just mentioned were given in a public statement made by Judge Gary, chairman of the Steel Corporation, late last Tuesday. Prices on other products of the Corporation were left to be worked out later, as various adjustments had to be made, since the steel market has had no general adjustment since the war control, and manufacturing costs are in different relations than formerly. The reductions of December 12, 1918, and March 21, 1919, were largely "horizontal" in character.

In blue-annealed sheets the independents had made some sales at 2.80 and 2.90 cents, but firmed up to 3.10 cents, and the Steel Corporation has reduced its price from 3.55 to 3.10 cents. In black sheets, independents had been selling carloads quite generally at 3.75 cents, but had advanced to 4 cents, and the Corporation now reduces from 4.35 to 4 cents. In galvanized sheets various prices had been going, generally 4.70 to 4.80 cents, but the independents had withdrawn all such prices and were quoting 5.10 cents. The Corporation reduced from 5.70 to 5 cents.

In standard steel pipe the independents had been giving various concessions, generally \$2 to \$4 a ton, until the Steel & Tube Company of America issued a new list making a uniform reduction of five points, or about \$9 a ton, and the other independents had not decided what they would do on account of this new development up to the time the Steel Corporation issued its new prices, which will now no doubt be adopted by the independents. The Corporation entirely rearranges its prices, on account of changes that have occurred in manufacturing costs. The reduction on one to three-inch is five points, or about \$9 a net ton, but smaller sizes take less reduction, and one-eighth-inch is not reduced at all, large sizes being reduced four points.

Wire products occupied a peculiar position. Nails now show a much smaller reduction from the war control prices than any other steel commodity, being now \$3.25, base, per keg, against \$3.50 under the war control. In uninformed quarters there is some criticism that nail prices have not been reduced. The fact is that nails were set particularly low under the war control by desire of the War Industries Board because they were distributed so generally, and the steel manufacturers conceded the point. On account of wage advances the cost of nails has increased very greatly in the past few years. In the reduction of December, 1918, nails were not touched, and in the Industrial Board reduction of March 21, 1919, they were reduced to \$3.25. In 1920 all the independents advanced to at least \$4.25, and some sales were made at much higher figures. Recently, with the independent cutting, \$3 was done, but the independents restored \$3.25 just before the Steel Corporation made its price announcement, and \$3.25 is now the general market. Plain wire is 3 cents, the Industrial Board price, the Steel Corporation having advanced to 3.25 cents last August, then reducing to 3 cents last week.

#### Price Averages.

In order to get an idea of where finished steel prices really do stand, comparisons of individual products are extremely coafusing. A weighted average, giving the price of each important commodity a weight according to its tonnage importance, much like the index numbers used for commodity prices in general, gives a clear picture. A weighted average of the important steel products shows a price per net ton of \$36 for the 10 pre-war years, 1904 to 1913. inclusive. The low point at the end of 1914 was \$28.50. In the advance that occurred before the Government took charge of prices in connection with the war the average went to above \$100. The war control average was \$76, while the prices now ruling make an average of about \$59.

The present average of steel prices is about 22 per cent below the Government prices during the war, 9 per cent below the Industrial Board prices of March 21, 1919, to which the Steel Corporation adhered consistently until last week with the exception of one or two minor changes, and 25 per cent below the prices at which the independents sold large quantities of steel last year, when they had advanced their prices far above the Steel Corporation level. Finally, it may be noted that the new prices are 65 per cent above the 10-year pre-war average.

#### Stabilized Market.

There is no question that there is now a stabilized market in the steel industry. Prices are the same by the Steel Corporation and the independents. The Steel Corporation's general policy is too well known for anyone to expect it to desire to make any changes for months to come. As to the independents, their recent experience in cutting the Steel Corporation's prices has not been a particularly profitable one from any angle, somewhat as their great advances in 1920 did not bring them the profits it seemed on paper would accrue. Whatever benefits by way of heavier buying should occur by prices being stabilized and buyers having confidence in the market may now be expected. No larger volume of buying can be counted upon, however, because the matter hinges upon much more than the mental attitude of buyers. analysis of the situation buyers of steel may be divided into three classes, the railroads, the investors who indulge in construction work and the manufacturing consumers, who produce various wares for sale-typewriters, stoves, automobiles, agricultural implements and what not. Now the railroads must await a reduction in their outgo through a settlement of their labor matter and an increase in traffic, for just now the railroads cannot even pay for the rails they have already ordered. Investors are waiting on a reduced cost of building through readjustment in building trades labor. Manufacturing consumers buy steel as the public buys the wares they make. The feeling in the steel trade is that all business is going to pick up gradually, and particularly as the labor matters just referred to are settled. It is believed that already the turn has been rounded, and that business is improving somewhat even now.

#### Operations.

The Steel Corporation's operations have decreased from 90 per cent in January to about 40 per cent last week, and this is likely to be the low point, for with the reductions the Corporation has made in its prices it is in line to receive heavier specifications from its customers as well as releases against orders previously held up. As to the 'independents, they gathered up some business under negotiation when the prospective buyers were confronted with the withdrawal of the open quotations, and their operations may increase somewhat over the present rate, which is about 35 per cent.

#### Coke.

Connellsville furnace coke is now at \$3.50 for spot or prompt shipment. A sale of about 1000 tons has just been made at that price, and it develops that the recent sale to the blast furnace at Portsmouth, O., was at \$3.50, and not at \$3.75, as originally reported in the trade. At \$3.50 coke may be considered well liqui-

dated, and with wages reduced and ore inventories written down pig-iron production costs are as low as they can be expected to be for quite a while, except as freight rates may be reduced, cutting down the extremely high cost of assembling raw materials. Buyers of pig-iron should, therefore, feel free to take hold as they have occasion to consume iron.

#### Better Feeling In Southern Pig-Iron Market.

Birmingham, Ala., April 18-[Special.]-A better feeling is noted in the pig-iron market in the South though there has been no appreciable improvement in the business, so far as furnace interests give out. The trading is still in small lots, ranging from a car to 100 tons, with an occasional 500 tons or more, the hand-tomouth idea still being apparent. The quotation for pig-iron is on a \$25 per ton base, No. 2 foundry, 1.75 to 2.25 per cent silicon, while one or two companies are asking \$26.50 and even more for their product. Reports common for the past few weeks that concessions had been made on the \$25 per ton price have been run down and found to be true as to resale iron and a lot less than 1000 tens for which a slight concession only was made. Cast-iron pipe makers are still looking forward to a number of specifications, while the sanitary pipe makers are feeling some effect of the building boom which is spreading. However, there is no buying of pig-iron to cover any long period ahead by these concerns.

Pig-iron production in Alabama, for April, will exceed that of March by several thousand tons, it is estimated now, though but three independent furnaces are in operation with seven of the Tennessee Coal, Iron & Railroad Co. furnaces making iron, one on foundry, one on ferro-manganese, and five on basic iron. The tonnage on furnace yards is still quite large, though a little under what was noted last month. The prospects are for further reduction during this month, local consumption and shipments being in excess of the production some.

Shipments of nails and rod, steel, cast-iron pipe and a little pigiron to California points via the Warrior River to Mobile, and thence by water through the Panama Canal are going to be of monthly and semi-monthly occurrence.

The fight for reduction of freight charges on raw material to the furnaces in this district, being made before the State Utilities Commission, is still being pushed. The manufacturers are showing the hardship being imposed by the high rate, very high as compared to charges made some years ago, while the railroads are presenting their showings as to the expense in handling the business.

The Birmingham district industrial circles was greatly interested in the announcement the past week that the United States Steel Corporation had made reductions in steel prices. The reduction will be felt in this as well as other sections where subsidiary organizations of the Corporation are in operation. It is expected there will be an early impetus in the steel buying. A turn for the better in general conditions is almost sure to follow. The steel ships being built at Mobile at the plant of the Chickasaw Shipbuilding & Car Co., are making regular sailings to foreign countries, carrying products from this district. The United States Steel Products Co., the export subsidiary of the Corporation, is handling the business and operating the ships. The order for 10,000 tons of steel rails for the South Manchurian railways is being filled from the Ensley plant of the Tennessee Coal, Iron & Railroad Co., some of the tonnage going down the Warrior River and others by rail to Mobile where ships of the Corporation is taking the product to China. The visit to this district a few weeks ago of representatives of the traffic department of the United States Export Products Co. was believed at that time to be significant, and that much of the export business would be placed here. There is evidence of the truth in the belief.

Recent sailings from Mobile had, among the crews, sons of some of the industrial leaders of this district, the young men making the trips in various positions on the boats for the purpose of education. The plans of ship building at the Chickasaw Shipbuilding & Car Co., subsidiary of the Tennessee Company, originally mapped out, have not been changed, and two or three more boats are to be completed. As soon as tried out, these boats are being placed into service and there is hope that export business of the Corporation with some tonnage from other concerns will make steady cargoes to the Far East and other parts of the world.

The annual meeting of the Sloss-Sheffield Steel & Iron Co. was held in New York the past week. This is one of the most active of the independent pig-iron companies of the Birmingham district. In addition to several coal and ore mines, a new by-product coking plant, the company has seven blast furnaces. But one iron-maker is in operation at present and there is considerable tonnage on the yards. Waddill Catchings was re-elected chairman of the board; J. W. McQueen, president, and Hugh Morrow, vice-president. The old bee-hive coke ovens of the company have been demolished and charged off, they being declared obsolete; heavy expenditures were made during the past year on electrification of mines and other plants; completion of the by-product plant and for other things, a material reduction in pig-iron selling price took place during the latter part of the year, and still the profits for the year, after allowing Federal taxes of \$1,893,779, dividends paid, \$1,069,000, left a balance of in surplus for year 1920 of \$824,779, the total surplus on December 21, 1920, amounting to \$7,933,047. The announcement is made that on the least improvement in the pigiron market there can be a material increase brought about on very short notice in the production, after the surplus stock of iron has been used up. The properties of the company are in the pink of condition.

Some few orders for coke, immediate delivery, during the past week had an encouraging effect though prices are low and inclined to be weak. Foundry coke is now being quoted at \$7 while the furnace product, with but little demand is from \$1 to \$1.50 under that. The production is still in excess of the demand, the byproduct coke production being quite large. The scrap iron and steel market shows no improvement in the South. The quotations are low and also weak, and consumers are still buying as they find themselves in need of the product.

In another fortnight, the car plant of the Chickasaw Shipbuilding & Car Co., subsidiary of the Tennessee Coal, Iron & Railroad Co., located at the immense fabricating plant at Fairfield, a short distance from Birmingham, will be completed. The plant will have a capacity of 25 pressed steel cars a day and it is generally understood there are numerous orders in hand.

Quotations for pig-iron and iron and steel scrap in the Birmingham district are as follows:

#### PIG-IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$25; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$26.25; from of 2.75 to 3.25 per cent silicon, \$27.50; from of 3.75 per cent silicon, \$25.50; from of 3.75 per cent silicon, \$28.75; from of 3.75 to 4.25 per cent silicon, \$30; charcoal iron, \$45.

#### OLD MATERIAL.

Old steel axles	\$15.00 to	\$17.00
Old iron axles		
Old steel rails		
Heavy melting steel		
No. 1 R. R. wrought		14.00
No. 1 cast	14.00 to	15.00
Stove plate	14.00 to	15.00
Old car wheels'		17.00
Old tramcar wheels	15.50 to	16.00
Machine-shop turnings	6.50 to	7.50
Cast-iron borings	6.50 to	7.50

#### Open-Shop Spirit Growing in Birmingham.

Birmingham, Ala., April 18—[Special.]—Little encouragement is to be held out in the Birmingham district as to organization of the steel workers, and when representatives of the big union come here the prospects are they will find considerable opposition to the plans. The strike of steel workers a few years back is too well remembered, being a dismal failure, and in this district there is more of an anxiety to get work rather than force the collective bargaining rights.

Officials of the Alabama Manufacturers' Association assert that the idea of open shop is getting strong following here with a fair play for all working people, nonunion as well as union. The printing trades of this district is prepared for a strike of job printers May 1, when the demand of 44 hours a week is refused. Union mine workers who were out on strike from last September until February, this year, are making strong appeals for re-employment. With a dull coal market, there is not much hope for many of the workers being employed for a while, at least. The national organization of the United Mine Workers of America has ceased furnishing food supplies to the men who were on strike in Alabama and that leaves them in a serious condition.

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# **RAILROADS**

# Significance of Labor Board Decision Widely Discussed.

Washington, April 18—[Special.]—Reaction is slow here to the announcement by the Labor Board that the national agreements between the railroads and certain of their employes are to be abrogated as of July 1. While it is true that the railroad companies have won that for which they have contended in the abrogation of these national agreements, the laying down of the "Sixteen Points" by the Labor Board has imposed such restrictions in connection with the new agreements that must be brought into effect as to make the final outcome in the matter a problem.

Point 5, for example, declares "The right of such lawful organization (the unions) to act toward lawful objects through representatives of its own choice, whether employes of a particular carrier or otherwise, shall be agreed to by the management." This, of course, is nothing more than a recognition of collective bargaining through the instrumentality of men chosen by the employes; men who are union men first, last and all the time, and, conceivably, not railroad employes at all.

On the other hand, Point 9 provides "Proper classification of employes and a reasonable definition of the work to be done by each class for which just and reasonable wages are to be paid is necessary, but shall not unduly impose uneconomical conditions upon the carriers." Decidedly, it may be pointed out, if this point is applied along proper lines, it will be within the power of the railroad companies to do away, in a large measure, with the ridiculous and costly arrangements now in effect; arrangements that in no small measure are responsible for the terrific waste of more than \$300,000,000 a year in part paid-for work never done.

Probably the most far-reaching of the sixteen points is No. 15, which provides:

"The majority of any craft or class of employes shall have the right to determine what organization shall represent members of such craft or class. Such organization shall have the right to make an agreement which shall apply to all employes in such craft or class. No such agreement shall infringe, however, upon the right of employes not members of the organization, representing the majority, to present grievances either in person or by representatives of their own choice."

In its essence this clause would compel not only the recognition of the union—of collective bargaining—but it would compel also the dealing with only one union in each class, and would be tantamount to ordering all of the men in that particular class or craft to join the union, as otherwise they would receive but small consideration.

Summarized, the sixteen points would seem to accept as a fait accompli the principle of collective bargaining, and that accepted, to have laid down principles under which collective bargaining in the railroad world shall be accomplished.

What the effect of the restoration of the principle of regional or road arbitration of difficulties cannot yet be forecast. There are so many phases and so many difficulties surrounding the matter that it will require probably the full two and one-half months allotted for amicable understandings to be reached between the employers and the men.

The Labor Board is taking up the question of wages, and is safe to assume that there will be a heavy draft for information on the wage controversy upon those men who otherwise would be engaged in framing an agreement along the lines of the sixteen points. In addition, the Congressional investigation of the railroad situation promises soon to begin, and further complication as to the final adjustment is probable as a result. It is argued on the part of certain of the railway executives that the Congressional investigation should be delayed until the working agreements shall have been settled. On the other side, it is pointed out that the Congressional inquiry will really be of enormous assistance in straightening out the troubles between the employers and the men, as there undoubtedly will be brought out at this hearing certain vital facts bearing upon the whole situation. In particular, it will be emphasized that as at present operated, the railroads are paying vastly too much of their net revenues for labor, and that as in all probability there will be a demand so insistent from the

Administration that rates be reduced that it cannot be ignored, there will be great popular support of a program of wage reduction when investigation by Congress reveals, as nothing else can reveal, just what the moneys are being received by the roads, and just how they are being expended.

#### Every B. & O. Man a Traffic Solicitor.

In line with the suggestion of President Daniel Willard of the Baltimore & Ohio Railroad that the Veterans' Association of that system, through every member (10,000 in number), become traffic solicitors to encourage business for the road; Archibald Fries, vice-president in charge of traffic, has arranged employes' mass-meetings at some of the principal traffic centers. H. O. Hartzell, manager of the commercial development department, is directing a campaign of all employes to obtain traffic and to co-ordinate their efforts in that line, this including men in the operating, maintenance, accounting, safety, welfare and other departments, as well as the traffic department, that is always soliciting business. There will be 19 or 20 of the mass-meetings, and to supplement their work a special corps of safety supervisors and committeemen will contribute their efforts to the movement. Officers of the company note signs that business is steadily improving, more orders being taken by business men in February than in January, and March showing better than February.

#### Railroad Extension to Develop Farm Lands.

Edinburg, Tex., April 2-[Special.]-Plans are on foot to build an extension of the San Antonio & Aransas Pass Railroad from Falfurrias to Edinburg, 50 miles, so as to give the lower Rio Grande Valley another direct transportation outlet north. Committees in towns along the route have taken up the matter with officials of the road, and are said to have received strong encouragement that the project would be carried out as soon as the necessary preliminary details, including obtaining permission from the Government, are concluded. At Edinburg the extended line would connect with the branch road of the St. Louis, Brownsville & Mexico Railway, which runs to this point from San Juan. It is pointed out that the agricultural development of the Rio Grande Valley is being greatly retarded by lack of railroad facilities to move products to market. The new line would also give a direct connection with San Antonio, and would incidentally open to settlement a big scope of territory that is capable of being cultivated.

#### May Reconstruct Pan-American Line.

San Geronimo, Mexico, April 8—[Special.]—It is reported at the headquarters of the Pan-American Railroad here that an American syndicate is negotiating for the purchase of that line. An inspection of the property by a party of Americans, including J. C. Bradford, an engineer who was formerly connected with the Mexican Central Railroad, gives color to the reported pending transaction. The railroad is in bad physical condition, and a large amount of money would be required for its rehabilitation. It runs from San Geronimo, where it connects with the National Tehuantepec Railroad, to Ayutla, on the Mexico-Guatemala border, about 460 kilometers—288 miles. The road was built by David F. Thompson, former United States ambassador to Mexico. He sold the property to the Mexican Government for \$12,000,000 during the latter days of the administration of the late President Porfirio Diaz.

#### Important Coal Mine Branch.

A contract has been let by the Central of Georgia Railway Co. to the Wright-Nave Company of Asheville, N. C., for the construction of the proposed branch from McCombs Station, near Birmingham, Ala., seven miles to coal mines which now have no railroad outlet. From the branch will be extended several mine spurs and tipple tracks, which are included in the contract. The branch will be exclusively for coal traffic and miscellaneous freight to the mines. No passenger trains will be run. There will not be any improvements in connection with the building of the branch, such as station buildings, etc., and no additional equipment will be required. The country is rough and rolling, and the completion of the track will be followed by increased output from the mine operations.

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# Seven-Cent Fare Enabled Baltimore Street-Car Company to Make Improvements.

The twenty-second annual report of the United Railways & Electric Co. of Baltimore shows that the operating revenues of the system increased more than \$2,500,000 in 1920, as compared with 1919. The detailed figures are: Operating revenues, \$17,-313,598.84; increase as compared with 1919, \$2,519,365, or slightly over 17 per cent; operating expenses, including depreciation and taxes, \$13,170,262; increase, \$1,829,051, or 16.13 per cent; operating income, \$4,143,336; increase, \$690,313. The gross income was \$4,264,077, and net income, after payment of interest on the funded debt and other deductions, was \$1,043,599; increase, \$797,174.

The company did not pay any dividends on the common stock during the year, all the earnings being put back into the property, although the net income showed that about 5 per cent on the stock outstanding was earned. The stockholders' meeting generally approved the company's policy of deferring dividends until its property had been brought up to the very best physical condition. President C. D. Emmons stated that more money had been put by the company into maintenance and improvement than ever before in any one year, such items amounting to about \$4,000,000. The seven-cent fare throughout the year enabled the company to materially improve its financial condition and its credit.

It is noted in the report that the Maryland Public Service Commission has ruled that it is to the best interest of the public, under existing conditions, that the company should earn a surplus of not less than \$1,000,000, and not more than \$1,500,000.

The sale of the Pratt-street power plant of the company to the Consolidated Gas, Electric Light & Power Co. for \$4,000,000, previously announced, has been approved by the Public Service Commission, which leaves that amount of money to be used for other capital purposes. This followed the closing of a contract in January, 1921, with the Pennsylvania Water & Power Co. to continue the agreement with it for a supply of electric power beyond the year 1926, the year of expiration of the old contract, and at a cost less than the company could produce its own power.

Equipment was increased during the year by the addition of 100 double-truck center-entrance trailer cars for use in connection with large double-truck motor cars to more expeditiously handle traffic, and 33 one-man front entrance motor cars, the latter being used on routes where traffic is not too heavy to be handled with them. It is stated that results of adopting these two types of cars show a net saving, by increased mileage and decreased costs, of about 30 per cent a year on the investment. Many other improvements looking to increased economy of operation have also been made.

Taxes, licenses, etc., paid during 1920 totaled \$1,839,420, an increase of \$430,159, and nearly 11 per cent of the gross earnings, or 43 per cent of the remainder after deduction of operating expenses. The park tax in Baltimore amounted to more than \$1,200,000 of the aggregate.

#### Second-Tracking Proposed.

The St. Louis-San Francisco Railroad Co., according to a report from Springfield, Mo., a division headquarters of the system, contemplates building second track from there to Oklahoma City, 303 miles, but it does not appear that any extensive program of this kind is proposed for early execution. It is probable that small sections of second track will be built from time to time at such points as may be most useful for the movement of traffic, and that eventually they will be connected up. A small amount of second track was built last year, a little east and little west of Springfield.

#### Railroad Through Oil Fields.

The Duncan, Oklahoma & Texas Railroad Co. is reported chartered at Oklahoma City to build a line from there via Duncan, Okla., and the oil fields of Stephens county to Wichita Falls. Tex., about 125 miles. The incorporators are residents of Duncan as follows: W. C. Hawley, secretary Chamber of Commerce; G. L. Wilson, president Duncan National Bank; M. C. Houston, W. E. Reynolds, Harry Baker and W. L. Brittain.

#### New Company to Supply Cars.

Interests affiliated with Freeman & Co., bankers, 34 Pine street, New York, are reported to have incorporated and organized under a Delaware charter the National Steel Car Lines Co., to have an authorized capital of \$1,000,000 of preferred stock and 20,000 shares of common stock, the latter without par value. The company will buy, sell and lease railroad cars under equipment trust plans.

It is further stated that equipment trust certificates, unconditionally guaranteed as to both principal and interest, will be issued, the security to be a first lien on tank and coal cars, as well as on other types. The first issue is to be made shortly, an agreement having been closed for the first transaction to supply cars.

The officers are: President, Ernest L. Nye; vice-presidents, Leon S. Freeman and E. Kirk Haskell; secretary, S. Halline; treasurer, R. J. Burton. Southgate B. Freeman and James A. Cotner are also directors.

#### Louisville & Nashville Gets \$4,750,000.

The Interstate Commerce Commission has approved the payment to the Louisville & Nashville Railroad Co. under the guaranty provisions of the Transportation Act of 1920, several amounts aggregating \$4,750,000, and also \$300,000 to the Atlantic Coast Line and the Louisville & Nashville R. R. jointly as lessees of the Georgia Railroad, besides \$1500 to the Kinston & Carolina R. R., likewise under the guaranty provisions.

An application by the Texas Short Line Railway Co. for authority to issue \$175,000 of first mortgage 5 per cent bonds to retire maturing debt was denied by the commission.

#### Proposed Sale of Tennessee Central.

A report from Nashville, Tenn., says that the application of local banks holding receivers' certificates of the Tennessee Central Railroad asking for postponement of a hearing in the case looking to a sale of the road has been granted by Judge E. T. Sanford of the Federal Court until May 2. It is further stated that the judge will, on May 7, at Chattanooga, hold a hearing as to terms for a decree of sale. The road has applied to the Interstate Commerce Commission for a loan of \$1,500,000, but it is said that the hearing will be held, no matter what action may be taken on the loan.

#### Bought In for the Stockholders.

The Valdosta, Moultrie & Western Railway, 42 miles long, from Valdosta to Moultrie, Ga., was bought in at the sale April 9 at Valdosta by Charles L. Jones, president of the road, acting for the stockholders, for \$87,000. There were, it is further stated, several other bidders. The stockholders, it is understood, will dispose of the property privately.

#### Sale Postponed-New Receiver.

The sale of the Fort Smith & Western Railway, which was set for April 4. has been postponed at the request of stockholders until July 1. Chas. T. O'Neal of Washington, D. C., according to a report from Fort Smith, Ark., has been appointed receiver to succeed Arthur L. Mills, who retires on April 15.

#### Official Changes.

C. W. Michel has been elected a vice-president of the St. Louis-San Francisco Railway Co. to fill the vacancy caused by the death of C. W. Hillard, vice-president in charge of finances, on March S. Gilbert Gannon, it is further stated, succeeds Mr. Michel in the position of assistant secretary.

F. A. Lehman of Chicago has been appointed general manager of the Western lines of the Santa Fe System, with headquarters at Amarillo, Tex., filling the place made vacant by the death of Rolla J. Parker recently.

E. W. Scheer has been appointed general manager of the Eastern lines of the Baltimore & Ohio Railroad Co. to fill the vacancy made by the resignation of Stanton Ennes on January 1. R. B. White succeeds Mr. Scheer as general superintendent of the Maryland district, and F. G. Hoskins succeeds Mr. White as superintendent of the Baltimore division.

# GOOD ROADS AND STREETS

#### State Highway and Bridge Contracts in Missouri.

The construction of approximately 23 miles of gravel highway and 8 bridges in New Madrid county, Missouri, is involved in two contracts amounting to \$327.468.89 awarded by the State Highway Commission, the contracts being designated as Federal-aid Projects Nos. 40 and 120. M. S. Murray of Sikeston, Mo., is the division engineer.

Project No. 40 provides for the improvement of 19.81 miles of Kings Highway, the width to be 24 feet, 16 feet of which is to be surfaced with gravel. The work also includes the construction of four bridges. Three of these structures will be pony truss spans of 70, 60 and 50 feet, respectively, and one will be a 38-foot 1-beam span. The entire contract was awarded to W. D. Lonergan of New Madrid, Mo., at \$237,351.89 for the road work, and at \$19.854.39 for the four bridges; total \$257,206.28.

Project No. 120 calls for the construction of 3.918 miles of the State Highway from Cairo to Poplar Bluff. The roadway will be 24 feet wide, with a 16-foot surfacing of novaculite gravel. The contract includes the erection of four bridges, one to be a 50-foot pony truss span, two to be 38-foot I-beam spans and the fourth a 35-foot I-beam span. A. Manegold of St. Louis, Mo., received the award for the project, the contract price being \$47,-730.60 for the road work and \$22,532.01 for the bridges; total \$70.202.61.

#### Securing Revenues for Tennessee State Highways.

Three bills have been passed by the State Legislature of Tennessee relative to revenues for the State Highway Department. One of these distributes 25 per cent of the automobile tax collected to the State Highway Department and the remainder to the county in which it has been collected. The total revenue from this tax is about \$1.200,000, from which the State will receive \$300,000.

The second bill levies a tax of one cent per gallon on gasoline sold in the State, which will be added to the general highway fund and distributed to the various counties as auto tax. It is expected that this revenue will be about \$350,000.

The third bill levies a tax of one mill tax on assessments throughout the State, and it is expected that this will amount to \$1,500.000 in highway funds, from which each county will receive \$5000

The total revenue from all sources will aproximate \$1.675,000 for the State Highway Department and \$1,075,000 for the counties, exclusive of Federal appropriations and individual bond issues. Practically all roads now under construction by the State are Federal-aid projects.

#### Improved Highways Proposed for Greenville County.

According to the terms of an act passed at the recent session of the Legislature, an election will be held in Greenville county, South Carolina, on August 30 for the purpose of voting on \$500,000 of bonds to build and improve highways. Another act also passed by the Legislature authorizes a \$100,000 bond issue to refund the county's past indebtedness for road improvements. The interest rate is not to exceed 6 per cent.

Of the contemplated \$500,000 bond issue \$250,000 is to be expended for building and improving roads having a topsoil surfacing, and the remaining \$250,000 for building and improving those highways constructed of asphalt, concrete or other hard-surfacing materials.

# Two Contracts Awarded for State Highways in Tennessee.

Two contracts totaling \$553,020.84 has been awarded by the Tennessee State Highway Commission for the construction of about 70 miles of highways. One contract amounting to \$354,-240.52 was awarded to A. F. Beardon of Birmingham, Ala., and calls for 13½ miles of roadway in White county. The other contract totaling \$198,780.32 was received by E. D. Harvey & Co. of Memphis, Tenn., and provides for 56¾ miles of highways in Madison county.

#### Plans \$1,100,000 Expenditure for Road Improvements.

Extensive plans for road construction are being made by the County Court of Taylor county. West Virginia. a bond issue of \$1,100,000 being available for expenditure. Three contracts for 6.5 miles of surfacing at a cost of \$264,048,23 have been awarded as follows: Cisler & Morris of Marietta. O., at \$163,283,95 for 4.2 miles of concrete surfacing on Webster road; Heger Bros, of Belleview. Pa., at \$79,855,45 for 2 miles bituminous macadam on Thornton pike; Withers & Robinson of Grafton, W. Va., at \$20,908.83 for .33 mile of brick paving on concrete base to connect city pavement with Pruntytown pike.

The county road engineers have been instructed to prepare complete plans and specifications for all the remaining roads provided for in bond issues and not yet awarded, so that construction bids can be invited at once. It is expected that contracts on all remaining unconstructed bond issue roads for the heavy grading and preparation of base will be let by July 1.

#### Bids Wanted for Maryland State Highways.

Seven additional sections of State highways will be constructed in various Maryland counties, the improvements totaling 13.15 miles of concrete and a small amount of sheet asphalt paving. The State Roads Commission, offices in Baltimore, will receive bids until April 26, and is now prepared to furnish plans and specifications to prospective bidders.

The concrete highways are to be constructed in Wicomico, Montgomery, Baltimore, Prince George's and Queen Anne's counties, the individual amounts being 3.72 miles for Wicomico county, 2.86 miles for Montgomery county and 2 miles in each of the remaining counties named. Sheet asphalt paving on concrete base is specified for Baltimore city, the amount being .57 mile.

#### To Extend Meridian Highway to Mexico City.

Laredo, Tex., April 18—[Special.]—At a meeting held here by D. E. Colp of San Antonio, State president of the Meridian Highway Association, and other interested persons, arrangements were made for logging the proposed extension of the Meridian highway from Laredo to the City of Mexico. The logging party will leave Laredo on the trip to the capital of Mexico on May 5. The Mexican Government has given assurance of its support, financially and otherwise, of the construction of the highway through that country. When finished the Meridian highway will afford a direct automobile route between Winnipeg, Canada, and the City of Mexico.

#### \$850,000 for Street Paving in Duncan, Okla.

Plans and specifications recently adopted by the Board of Commissioners of Duncan, Okla.. provide for the paving of 100 blocks, requiring the placing of approximately 130,000 square yards of asphaltic concrete. The cost is estimated at \$\$50,000. Bids for the work were received until April 19, and the result of the opening of the proposals will soon be announced.

#### Notes on Good Roads Construction.

An improved highway between Charleston and Philipp, in Tallahatchie county, Mississippi, will be built this year. Bonds totaling \$200,000 recently were purchased by the Tallahatchie Home Bank of Charleston.

The Highway Department of the Board of State Engineers of Louisiana, New Orleans, is inviting bids until May 10 for the construction of 14.52 miles of the Jena-Alexandria Highway, in La Salle parish. Complete information will be furnished by the Highway Department.

The city of Clarksville, Tenn., has awarded a contract to the Municipal Paving & Construction Co. of Bristol, Va., for 50,000 square yards of asphalt concrete street paving at a cost of \$200.000. S. R. Alexander is the city engineer and E. W. Myers has been engaged as the consulting engineer.

# LUMBER AND BUILDING MATERIALS

#### Southern Pine Orders for Week of April 1 Make Best Showing for Any Similar Period in Past 12 Months.

New Orleans, I.a., April 14—[Special.]—The largest amount of business reported in any week since April, 1920, is indicated in the announcement of the Southern Pine Association for the week ended April 1, when 134 mills received orders for 3135 cars containing 61,863,615 feet, or an average of 506,490 feet per mill. The previous high record during the year was for the week ended January 14, when 136 mills reported receipt of orders for 3163 cars containing 68,690,871 feet, representing an average order per mill amounting to 505,080 feet.

The average order received per mill for the week ended January 7 was 282,321 feet, reports being obtained that week from 125 mills. Since that period the lowest average order per mill during any week was for February 11, when 135 mills showed an average of 421,308 feet. The sales of Southern pine lumber have been holding up well, and prices have been stiffened in a number of instances.

The production has jumped from an average per mill of 318,101 feet for the week ended January 7 to 468,791 feet for April 1, the highest average production being recorded for the week ended March 4, amounting to 490,157 feet.

Shipments have increased from the low average of 328,535 feet for the first week of the year to 493,726 feet for the week ended April 1, the biggest average shipment being 496,752 feet for the week ended March 25.

#### Building Activity in Monroe and Vicinity.

R. B. Blanks, president of the State Real Estate Board of Louisiana, writes the Manufacturers Record as follows on the general building activity in Monroe and vicinity:

"The Ouachita National Bank Building, now under construction, will cost \$750,000. A new theater about complete is to cost \$250,000. Palmer-Pitter Company are contemplating building factories utilizing the many millions of feet of gas from the wells of Ouachita and Morehouse parish. It is contemplated that New Orleans, Alexandria and many other cities will pipe this gas from the field, and the supply is almost inexhaustible, according to figures shown; in fact, the field becomes stronger, with new additional wells monthly. Palmer-Potter people propose to furnish gas to factories, under a favorable franchise, guaranteeing to deliver to any factory expending large sums here sufficient gas to keep it busy over a long period of time.

"A new factory subdivision is being contemplated, with free factory sites under certain conditions, and its location is ideal with reference to drainage, railroad facilities and good roads. The Monroe Real Estate Exchange invites inquiries and offers its services without charge in any way conducive to the growth of this subdivision. The Monroe Real Estate Association desires to secure to the land owners and farmers between the Ouachita and La Fourche rivers a system of surface drainage to make this fertile land a garden spot and invite home seekers on small farms near Monroe, now about to take its place among the fast-growing cities of the country."

#### Sees No Decline in Rentals.

New Orleans, April 16—[Special.]—Whatever else comes down, rents are likely to remain high for some time, according to Morgan D. E. Hite, chairman of the State Housing Committee. Discussing housing conditions recently, Mr. Hite said: "New Orleans has about reached the saturation point for its growing population. Since the let-up in building operations during war years many old residences have been thrown into apartments, and a large number of people accommodated in this way. Even if construction work here were pushed to the extent of present facilities, only about 1200 new houses could be built this year, and this is much less than the number required to take care of the increased population.

"One hundred advertisements appear daily of 'apartments,' so-called. There are almost no advertisements of houses for rent. There are a multitude of makeshift apartments, places of shelter and habitation only, which a few years ago our people would have scorned to live in."

#### Activities at Southern Pine Lumber Mills.

New Orleans, La., April 9—[Special.]—For the week ended April 8 reports from 129 mills of the Southern Pine Association indicate receipt of orders for 2927 cars of 63,366,623 feet, compared with orders received during the preceding week by 134 mills for 3135 cars of 67,869,615 feet. The average order received per mill amounted to 491,214 feet, compared with 506,490 feet for the week ended April 1.

The report for the week is as follows:

Orders on hand beginning of week	Cars. 8,982 2,927	Feet. 194,451,318 63,366,623
Shipments during week	11,909 2,803	257,817,941 60,682,147
Orders on hand and of week	0.100	107 195 704

The production for the week was 58,840,659 feet, as compared with the normal production of the same mills, amounting to 83,674,210 feet.

Shipments for the week were 3.13 per cent above production, while orders were 7.69 per cent above production. Orders were 4.42 per cent above shipments. The actual production was 29.68 per cent below normal, and shipments were 27.48 per cent below normal production. Orders were 24.27 per cent below normal production. The increase in "orders on hand" during the week amounted to 1.38 per cent.

#### Renewed Building Activity at Mobile.

Mobile, Ala., April 18—[Special.]—Building operations are taking on renewed activity in this vicinity. According to estimates made by contractors and architects, between 40 and 50 residences are now actually under way in addition to a large apartment-house, involving a total expenditure of approximately \$400,000. Fairhope, across the bay from this city, is also experiencing a revival of building activities, upwards of 30 dwellings and two apartment-houses being now under construction. Pritchard and other Mobile county communities are also sharing in the activity.

Lumber is lower than it has been for several years, and other, building material prices have also been reduced. Labor is accepting a cut in wages. These conditions have acted as a stimulus to building operations, and real estate owners and investors have been encouraged to put their money in such development.

#### Five Memphis Building Trades Adopt Open Shop.

Memphis, Tenn., April 13—[Special.]—As a result of a strike begun April 1, employers of five building trades, after failing to effect a reconciliation with their employes, announced that they will hereafter operate on an open-shop basis. This means that there are now only three building trades in Memphis that have not declared for the open shop.

#### Big Lumber Exports From Port of Orange.

Orange, Tex., April 9—[Special.]—Lumber exports for March from this port reached a total of 5,990,929 feet. In addition, 1800 tons of general cargo were exported, the principal destination being the Mexican ports of Tampico and Vera Cruz.

#### Lumber and Building Materials Notes.

April building permits issued in nine days at Tampa, Fla., represent a total expenditure of approximately \$225,835, and indications are that April will be a record-breaking month in building activities. There are now over 75 houses under construction in and about the city. Plans have just been announced for a \$150,000 hotel building.

Building permits issued in Dallas, Tex., during the week ended April 8 had a total valuation of \$258,460, and since the first of the year the total valuation of permits issued amounts to \$3,729,972. Practically all of the permits issued during the first week in this month were for residence construction.

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## **TEXTILE**

#### To Erect Dyehouse at Judson Mills.

Plans are being prepared for a dyehouse to be erected by the Judson Mills of Greenville, S. C., manufacturer of fine and fancy cotton goods. The building will be of brick, with daylight sash, while the roof will be of the monitor type supported on steel beams. It is expected that bids will soon be invited. J. E. Sirrine & Co. of Greenville are the engineers.

#### Textile Mill Notes.

The Mecklenburg Mills Co. of North Charlotte, N. C., manufacturer of print cloths, has increased its capitalization by \$200,000

An increase in capitalization to \$1,800,000 has been announced for the Riverside Mills of Augusta, Ga. George R. Stearns is president.

A meeting of stockholders of the Cohannet Mills, Fingerville, S. C., will be held at Spartanburg on May 6 to consider a resolution adopted on April 5 by the board of directors authorizing the increase of capital stock to \$200,000. Cotton yarn is manufactured at the plant. B. B. Gossett is president.

The Woodstock Cotton Mills of Anniston, Ala., has resumed operations after a suspension of four months owing to business depression. About 150 operatives will be employed on a six-day schedule. The plant manufactures cotton yarns, Turkish towels and table damask.

For the purpose of manufacturing and dealing in textiles and wearing apparel of all kinds, the Stuart Corporation of Stuart, Vt., has been incorporated with an authorized capital stock of \$150,000. J. C. Shockley is president and H. L. Hooker is secretary.

Water-works facilities are being provided at the mill village of Dallas, Huntsville, Ala., by the Dallas Manufacturing Co. A large tank is being erected which will furnish water both for domestic use and fire protection. Water is obtained from deep wells. The company manufactures sheetings, and has its offices in Huntsville.

#### Commendations, Kicks and Comments

#### Indispensable.

T. J. DEMPSEY, attorney-at-law, Atlanta, Ga.—Enclosed please find \$6.50 check for subscription for your magazine. Can't do without it.

#### Can't Do Without It.

E. H. Mote, Leesburg, Fla.—I am firmly convinced that I cannot do without the Manufacturers Record at present. Enclosed find check for six dollars and fifty cents (\$6.50) for one year's subscription.

#### Truth Is Mighty.

N. H. Wright. Asheville, N. C.—You will find enclosed \$6.50 for one year's subscription. It is wonderful the fight you are making, almost single-handed, against the deflation policy of the Federal Reserve Board.

#### The Most Valuable Publication Received.

G. A. MILLER, Tampa, Fla.—I herewith inclose my check for \$6.50 for renewal of subscription to the MANUFACTURERS RECORD. We do not want to be without this publication as we think it the most valuable of any we receive.

#### Reliance in Divine Help.

Geo. Gorton, president The Gorton Trust (A Business Trust), Cement, Okla.—It seems to be my duty to acknowledge, and thereby encourage, I trust, your work as expressed in your editorials.

This old world, filled as it is and always has been, with trouble, has no hope except that which may be gathered from God's promises to those who obey His commands. Being human, some of us occasionally forget these commands.

"Lord, help us not to forget," might well be a part of our warning prayer.

#### Feel Lost Without It.

A. K. KILPATRICK, Cashier Louisiana Savings Bank & Trust Co., Monroe, La.—Enclosed find our check for \$6.50 in payment of subscription to the MANUFACTURERS RECORD for one year. We feel that we will be lost without your wonderful magazine and do not want to miss a single issue.

#### In Full Sympathy.

M. Adams, Manager Southern Metal Co., Inc., Lake Charles, La.—The writer happens to be one of Mr. Edmonds' admirers and is with him heart and soul in the stand he has taken regarding the Federal Reserve Board. The time is coming when he can enjoy the fruits of his labors.

#### Sharing a Good Thing.

HENRY M. LELAND, President Lincoln Motor Co., Detrowt, Mich.— Enclosed is 20 cents in stamps. Please send me an extra copy of the issue of March 31, marked for my special attention, at this address. There were so many good things in this particular issue that I had to pass my copy on to some one else.

#### Predictions Fulfilled.

W. Kelly, Huntsville, Ala.—I thank you for continuing to send me the Manufacturers Record since my subscription expired January 25, 1921. About or just before that time I wrote to you that you could count me as a subscriber for the balance of time of my life. How little then did I know of what the Federal wrecking board was going to do for me. You predicted it all in advance—told of exactly the result that would follow. Every issue of the Manufacturers Record is worth more than the year's subscription. Enclosed \$6.50 check.

#### For Protective Tariff and Americanism.

E. T. Atkins & Co., N. A. Gladding, Vice-President, General Manager Sales, Indianapolis, Ind.—Permit us to take this opportunity to express our great appreciation and hearty approval of the vigorous stand that you have taken in favor of a protective tariff, and also for many other things that stand for Americanism and the Bill of Rights under the Constitution, such as the right of a man to work, whether he is union or nonunion, proper handling of the Federal Reserve System. etc.

Your editorials have been splendid and we have read nothing as yet that we couldn't say "Amen" to. Keep it up, Brother Edmonds. We are for you.

#### The Policies of Houston-Harding Have Already Been Overturned by the New Administration to the Good of the Country, and in That Respect at Least This Subscriber Was Not a Good Prophet.

W. A. WILCOX, Douglas, Ga.—Please find my check enclosed to cover enclosed bill you sent me for subscription to the MANUFACTURERS RECORD.

The paper is invaluable to me in many ways. We all have our faults. I suppose, and your continued attack on the banking system of the country is deprecated by me. Nothing but Secretary Houston's, wise measures to meet the storm of deflation which he saw coming saved the country's banking system from complete ruin. Mr. Houston and Mr. Harding did not, as you foolishly think, produce the panic. They only did their best to let it do the least harm. You will see the Republican Administration strictly adhere to their policies. Mark this! Wait 10 years and see what is then said about Mr. Houston, Mr. Harding and President Wilson!! Aye, do this!!!

#### "A New Pair of Shoes a Month."

Cabl L. Bradt. Manager of Agents. Detroit Steel Products Co., Detroit, Mich.—Your March 31 issue cover page is so timely and to the point that I wish to congratulate you on it. We in the building-material business who are trying to encourage a resumption of building programs instead of just "watchful waiting" appreciate fully such help as this.

Slogans are just like battle flags, and there have been some very good slogans used in this country which have led forces on to victory. We all remember the old slogans, "Pikes Peak or Bust," "Remember the Alamo" and "Remember the Maine."

I believe that there is considerable business to be had in this country, but it is absolutely necessary that everyone of our men get up on their toes and go after it—in other words, they have got to wear out a lot of shoe leather if they expect to have any business on the books at the end of each month. With this idea in mind I have put out the following slogan for our agents: "A New Pair of Shoes a Month in 1921."

We are expecting every one of our men to be so active after business that this will be necessary, and we believe that if they do follow this slogan that they will wind up the year on the right side of the ledger.

# Construction Department

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

#### DAILY BULLETIN.

The Daily Bulletin of the Manusacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

### Bridges, Culverts and Viaducts.

Ala., Mobile.-Mobile County let contract to Jett-Muths Construction Co. at \$6200 for repairing drawbridge over Dog River; John D. Hagan, Prest. Board of Revenue and Road Commrs. (Lately noted inviting blds.)

Ga., Springfield. - State Highway Dept., Atlanta, Ga., let contract to Municipal Engineering & Construction Co., Atlanta, at 89745.76 for 2 bridges on Project F. A. No. 205; concrete; Effingham County; W. R. Neel, State Highway Engr., 700 Walton Bldg., Atlanta, Ga.

Ga., Sylvania. - State Highway Dept. let contract to Pritchard Raines & Hazelburst, Savannah, Ga., at \$8670.24 for 3 concrete bridges between Newington and Sylvania, F. A. Project 47, Screven County.

Ky., Russell.-Ironton Russell Bridge Co. organized; will build \$700,000 bridge; cantilever type; bids about June 1. Lately noted incptd., capital \$500,000. (See Machinery Wanted-Bridge Construction.)

Ky., Somerset-Pulaski County will build bridge over Pitman Creek; 120 ft. long, 12 ft. wide; F. Elwood Grabeel, County Engr.

La., Vidalia. - Concordia Parish will con struct bridge over Wild Cow Bayou on Black River; steel or creosote pile; bids until Judy 2: B. C. Brown, Prest. (See Machinery Wanted-Bridge Construction.)

Miss., Hattiesburg. - Forrest County let bridge contracts as follows: Champion Bridge Co., Wilmington, O., at \$2294, bridge over Big Creek; Vincennes Bridge Co., Vincennes, Ind., at \$4196, bridge over Little Black Creek; E. A. Asher, Pinola, Miss., at \$5587.75, concrete bridge over Du Priest Creek; H. C. Dietzer, State Highway Engr., Jackson, Miss. (Lately noted inviting bids.)

Miss., Meridian.-Lauderdale County let contract to Austin Bros. Bridge Co., Atlanta, Ga., for steel bridge over Loper Creek; W. J. Tolbert, Meridian, for steel bridge over Possum Creek; Geo. F. Hand, Clk. (Lately noted inviting bids.)

Miss., Natchez.—Adams County will build bridges over Wickland Bayou and Wade's Bayou; bids until May 3; H. B. Vaughan, Board Supvrs. (See Machinery Wanted-Bridge Construction.)

Mo., Grant City .- State Highway Dept., Jefferson City, Mo., will build reinforced concrete bridge; State-aid Project S-20.20; bids until Apr. 26; A. C. Singley, Div. Engr., St. Joseph, Mo. (See Machinery Wanted-Bridge Construction.)

Mo., Jefferson City. — State will build bridge across Maries River on Linn road; will invite bids; A. W. Graham, State Highway Engr.

Mo., Liberty.-State Highway Dept., Jeffer-

Aid Project 99; Clay County; \$20,219.54; bids until Apr. 25; A. C. Singley, Div. Engr., St. Joseph, Mo. (See Machinery Wanted-Bridge Construction.)

Mo., New Madrid. - State Highway Dept., Jefferson City, Mo., let contract to A. Manegold, St. Louis, Mo., at \$22,532.01 for 4 bridges on road from Cairo to Poplar Bluff; Federalaid Project No. 120; two 38-ft. and 35-ft. Ibeam spans and 50-ft. pony truss span; M. S. Murray, Div. Engr., Sikeston, Mo. (See Road and Street Construction.)

Mo., New Madrid: - State Highway Dept., Jefferson City, Mo., let contract to W. D. Lonergan Construction Co. at \$19,854.39 for 4 bridges on Kings Highway; Federal-aid Project No. 40; 50, 60 and 70-ft. pony truss spans. 18-ft. roadway, 2 reinforced concrete abutments and 38-ft. I-beam span, 18 ft. roadway, etc.; M. S. Murray, Div. Engr., Sikeston, Mo. (See Road and Street Construction.)

Mo., Poplar Bluff. - State Highway Dept., Jefferson City, Mo., will build reinforced concrete bridges; Federal-aid Project 59; \$11,071.80; bids until Apr. 30; M. S. Murray, Div. Éngr., Sikeston, Mo. (See Machinery Wanted— Bridge Construction.)

N. C., Elkins.-Will build steel or cement bridge; \$12,000; H. T. Brown, Engr.

N. C., Kenansville.-Duplin County will sell \$300,000 bonds for bridge and road construc-tion; Jas. J. Bowden, Clk. County Commrs.

Okla., McAlester.-State Highway Dept., Oklahoma City, will probably let contract to Froebe-Briscoe Construction Co., Muskogee, for building Gaines Creek bridge, Pittsburg County; \$49,120.45.

Okla., Newkirk. - State Highway Dept., Oklahoma City, Okla., let contract to Pioneer Construction Co., Kansas City, Mo., at \$7149 for bridge in Kay County.

Tex., Laredo.-Webb County will build steel and reinforced concrete bridges and culverts on State Highway No. 2; construct 35.4 ml. road; bids until Apr. 30; A. Winslow, County Judge. (See Machinery Wanted-Bridge Construction.)

Tex., Waxahachie,—Ellis County will build 60-ft. steel truss bridge, 60-ft. steel I-beam bridge and two 20-ft. steel I-beam bridges; 81/2 mi. road; bids until Apr. 22; G. G. Edwards, Engr., Ennis, Tex. (See Machinery Wanted-Bridge Construction.)

Va., Hurley.-Buchanan County will construct approaches to bridge across Knox eek; bids until May 3; S. R. Hurley, Clk. Board Suprvs. (See Machinery Wanted— Bridge Construction.)

Va., Jonesville. — Virginia State Highway Comsn., 116 S. 3d St., Richmond, Va., will build steel and concrete bridge 98 ft. long over Dry Creek on State Road No. 10, Lee County; son City, Mo., will build 6 bridges; Federal Virginia Project No. 60; bids until May 3; G.

P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted-Bridge Construction.)

Va., King William.-Virginia State Highway Comsn., 116 S. 3d St., Richmond, Va., let contract to Geo. Hankins & George, Richmond. Va., for 488-ft. bridge over Mattaponi River between King William and King and Queen counties on State Road No. 13; Virginia Project No. 72-B; G. P. Coleman, State Highway Commr., Richmond, Va. (Lately noted inviting bids.)

Va., Lawrenceville,-Virginia State High-way Comsn., 116 S. 3d St., Richmond, Va., will build reinforced concrete bridge 83 ft. long over Rose Creek, Brunswick County, on State Road No. 1; Virginia Project S-92; bids until Apr. 26; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted-Bridge Construction.)

Va., Richmond.-Virginia State Highway Comsn., 116 S. 3d St., will build reinforced concrete bridge 96 ft. long over Brook Run, Henrico County, on State Road No. 1; Virginia Project No. S-91; bids until Apr. 26; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted-Bridge Construction.)

W. Va., Clarksburg.-Harrison County and Lewis County will build intercounty reinforced concrete bridge over Kincheloe Creek; bids until May 16; Clair N. Parrish, Clk. Harrison County Court, Clarksburg, W. Va.; Leander Troxell, Clk. Lewis County Court, Weston, W. Va. (See Machinery Wanted-Bridge Construction.)

### Canning and Packing Plants.

Ala., Dothan.-Middleton Canning Co. will establish plant to can sweet potatoes and other vegetables; contemplates packing 100,000 cases annually; acquired factory building. Address Chamber of Commerce,

Fla., Ocala.-Florida Orange Grove Corp., C. P. Anderson, Prest., Pittsburgh, Pa., and Ocala, Fla., will establish packing plant. (See Land Developments.)

Ga., Augusta. - Eldorado Farm, Eric W. Hardy, Secy., contemplates establishing can-nery. (See Machinery Wanted - Cannery Equipment.)

Ga., Darien. Georgia Canners, incptd. with A. D. Strobhar, Prest. Savannah, Ga.; C. A. Taylor, Secy., Brunswick, Ga.; secured site; will establish cannery.

Mo., St. Louis.-Sieloff Packing Co., Emil Sieloff, Prest., 4339 Natural Bridge Ave., will erect smokehouse; 1 story; 60x40 ft.; semi-fire-proof; brick; concrete construction; Wedemeyer & Nelson, Archts., Wainwright Bldg.; invite bids.

Mo., St. Louis.-Sears & Nichols Canning Co., capital \$2,000,000, organized with W. J. Sears, Prest., Chillicothe, O.; combines 19 companies, including J. T. Polk Co. and Sears & Nichols Canning Co., with annual output of 75,000,000 cans vegetables.

Mo., St. Louis.-Sieloff Packing Co., Emil Sieloff, Prest., 4339 Natural Bridge Ave., will erect 1-story 50x45-ft. ice-machine room and bins; semi-fireproof; brick and concrete construction; Wedemeyer & Nelson, Archts.,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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Wainwright Bldg.; Archt. and owner invite bids.

Va., Richmond.—Kingan & Co., 1438 E. Cary St., let contract to John T. Wilson & Co., Mutual Bldg., to construct plant annex; cost \$27,-600; Carneal & Johnston, Archts., Chamber of Commerce Bldg.

### Clayworking Plants.

Ky., Olive Hill.—Bricks-Olive Hill Refractories Co., Ashland, Ky., organized with John F. Hagar, Prest.; J. William Stewart, Treas.; will erect building; install machinery; daily output 30,000 standard fire bricks.

Okla., Chelsea — Tiles and Bricks.—Chelsea Tile & Brick Co.. capital \$50,000, incptd. by E. J. Dickerson, Vinita, Okla.; F. E. Dickerson, M. W. Hinch; both Miami, Okla.

Tex., Houston—Bricks and Tiles.—Bohemia Brick & Tile Co., capital \$125,000, incptd. by A. T. Eddington, Jas. Pokorny and Otto Jetal.

### Coal Mines and Coke Ovens.

Ala., Gadsden.—Appalachian Coal & Iron Co. reported to have been purchased by Joseph Mierzynski and others, Chicago, Ill.; plans developing 1200 acres coal land; build blast furnace, finishing mill, etc.

Ark., Paris.—Grand Coal Co. increased capital from \$10,000 to \$23,000.

Ky., Tremont.—Consolidated Mining Co., Columbus, O., purchased plant of Vinson-Kolb Coal Co.; plans development; mchy. purchased.

Md., Frostburg.—Jenkins & McCall Coal Co., capital \$30,000, incptd. by Jonathan Jenkins, John M. McCall, Benjamin T. Bradley.

Tenn., Chattanooga.—Etna Coal & Land Co., James Bldg., capital \$150,000, organized by F. C. Dunn and H. M. Urban; develop extensive tract.

Tex., Rockdale.—Standard Coal Co., capital \$550,000, reorganized with Theo. Magott, Frest.; H. A. Wolf, Secy., both San Antonio, Tex.; will develop 1400 acres lignite; remodel plant, install mehy., build miners' houses, etc.

Tex., Dallas.—Midland Coal Co., capital \$30.000, incptd. by M. B. Shannon, J. L. Rowland, H. G. Kellogg.

W. Va., Beckley.—Pack's Branch Coal Co., capita; \$100,000, incptd. by C. M. Lilly, Herbert Stansbury, W. H. Penders.

W. Va., Charleston.—Splint-Orgas Coal Co., copital \$200,000, incptd. by A. E. Moore, James Kay, J. L. Mandt.

W. Va., Fairmont. — Clearwater Coal Co., capital \$250,000, ineptd. by C. E. Wilson, A. B. Kurtz, J. C. Henry, all of Connellsville, Pa.

W. Va., Grafton.—Adelaide Coal Co., capital \$25,600, incptd. by Norman F. Kendall, William F. and Adelaide Samples.

W. Va., Hinton.—McCreery Central Pocahontas Coal Island Co., capital \$500,000, incptd. by Jas. T. and E. P. McCreery, both Hinton; D. H. Johnston, Beckley, W. Va.

W. Va., Huntington.—Wayne Collieries Co., capital \$50,000, incptd. by E. C. Webb, R. L. Dial, both Huntington; J. C. Ferguson, W. Va.

W. Va., Iaeger.—Ward-Pocahontas Coal Co., T. A. Lambert, Prest., Welch, Va. (lately noted increased capital to \$200,000), will develop 658 acres coal land, daily output of 400 tons; install aerial tramway; G. J. Cooper, Const. Engt., Welch. (See Machinery Wanted —Aerial Tramway.)

W. Va., Logan.—Oneida Coal Co., capital \$500,000, incptd. by Buckner Clay, T. Brooke Price, Harrison B. Smith.

W. Va., Lundale.—Lundale Coal Co., Geo.

M. Jones, Prest., increased capital from \$1,000,000 to \$1,100,000.

W. Va., Lundale.—Amherst Fuel Co., Geo. M. Jones, Prest., increased capital from \$100,000 to \$200,000.

W. Va., Wheeling.—Eddington Coal Co. organized by Harry Dorman, Harvey H. McDonald, Harry Davis.

### Concrete and Cement Plants.

Ala., Alabama City—Bricks and Tile.—Birmingham Slag Co., Birmingham, Ala., reported establish brick and tile plant.

Ky., Catlettsburg—Concrete Hocks.—W. A. Patton will establish plant for mfre. concrete blocks, tile, etc.; mcby. purchased.

Okla., Tulsa — Concrete Blocks. — Double Strength Concrete Block Ca., capital \$10,000, incptd. by L. L. Mixon, G. A. Cairn.; Everett Petrs.

Tex., Castroville—Portland Cement.—Gulf Portland Cement Assn., capital \$300,000, incptd. by John J. Shorp. L. C. Ihnken, both Castroville; W. S. Campbell, San Antonio, Tex.; plans to erect plant for mfre. of cement.

### Cotton Compresses and Gins.

Ga., Covington.—Covington Cotton Oil Co., P. G. Walker, Secy.-Treas., will erect 70x45-ft. and 80x60-ft. buildings; ordinary construction; install \$80,000 machinery; bids until May 1. (See Machinery Wanted—Cottonseed-oil Mill Machinery.)

Tex., Caldwell.—Caldwell Gin Co. will construct 75 bales daily capacity plant.

### Drainage Systems.

La., Lake Charles.—Lake Charles Drainage Dist. No. 1 Commrs, will reclaim 2200 acres land; voted \$150,000 bonds.

Miss., Yazoo City. — Holmes-Humphreys-Yazoo Drainage District Commrs. will reclaim 185,000 acres land; Morgan Engineering Co., Engr., Memphis, Tenn.

Tenn.. Somerville.—Laurel Creek Drainage Dist. of Fayette County, Sam W. McCleskey, 11 S. 2nd St., Memphis, Tenn.; Construct drainage system; bids opened.

Tex., Houston.—Harris County Commrs., Drainage District No. 8, will construct drainage; 700,000 cu. yds. excavation; bids until Apr. 25. (See Machinery Wanted— Drainage System.)

### Electric Plants.

Fla., Fort Lauderdale.—Southern Utilities Co. plans extending lighting system to Las Olas Beach and Idlewyld.

Fla., Sebring.—Voted \$250,000 bonds for electric light and water-works and street improvements. Address The Mayor.

Fla., St. Petersburg.—Plans erecting building; install pumping equipment, electric power; 2 wells, etc. Address The Mayor.

Ky., Falmouth.—City Water-Works plans constructing power plant; install 500,000-gal. pump; remodel old plant; etc.; Glazier & Morlidge, Engrs., 20 Miller Bidg., Cincinnati, O.

Mo., Baltimore.—Standard Oil Co., Pratt and Commerce St., contemplates construction of 142x33-ft. power plant at Third Ave. and 2d st.

Md., Betterton. — Plans installing electriclighting system. Address The Mayor.

Miss., Belonzi.—Will vote in May on \$25,000 light and water plant improvement bonds. Address The Mayor.

N. C., Ahoskie.-Will issue \$40,000 electric light and water bonds. Address The Mayor.

N. C., Asheville.—Naiman Electric Co., capital \$75,000, incptd. by Sol Naiman, Claude R. Cook and George W. Webb.

Okla., Cherokee.—Voted \$60,000 bonds to extend lighting plant and for fire equipment. Address The Mayor.

Okla., Chickasha.—Gay Electric Co., capital \$25,000, incptd. by G. G. Gay, E. L. Hope, botb Chickasha; L. W. Drummond, Ada, Okla.

Okla., Duncan.—Will vote on \$630,000 waterworks and electric-light plant bonds; install water supply and supply lines; construct 2,000,000-gal. reinforced concrete reservoir, with lines to city; Robt. Frensley, City Clk.; J. F. Ewell, City Mgr.; Benham & Mullergren, Conslt, Engrs., Firestone Bldg., Kansas City, Mo.

S. C., Landrum.—Plans construction \$4006 to \$6000 electric system; power from Blue Ridge Power Co.; R. F. Andrew, Mayor. (Lately noted.)

Tex., Ballinger.—Plans erection electric light plant; estimated cost \$75,000; C. S. Guin, Mayor. (Lately noted to vote on \$65,000 bonds.)

Tex., Highland Park, P. O. Dallas.—Voted \$16,000 bonds to install lighting system; H. R. Davis, Mayor. (Lately noted to vote.)

Tex., San Angelo. — San Angelo Water. Light & Power Co. will double plant capacity; install 500 H. P. oil-burning engine and generator; cost \$70,000; plans constructing line to State tuberculosis sanatorium and into Concho and Colorado River valleys to operate irrigation pumps.

Va., Buchanan.—Buchanan Light & Water Co. plans erection 75x38-ft. light and water steam power plant, including flight conveyor-type coal hoist; install 1200 H. P. boiler, etc.; L. Hudson. Engr., Wabash Bldg.. Pittsburgh. Pennsylvania.

Va., Newport News. — Newport News & Hampton Ry., Gas & Electric Co., J. N. Shannahan, Prest., Hampton, Va., increases capital from \$4,000,000 to \$5,000,000.

Va., Norfolk.—Will install lighting system on Bank St. from Main to Queen Sts.; bids until Apr. 18; C. M. Ashburner, City Mgr. (Bately noted.)

W. Va., Petersburg.—Community Power Co. organized with R. W. Baker, Mgr.; will construct 1 to 12-mi. transmission line to Moorefield, W. Va.; develop 200 H. P. (Lately noted incptd., capital \$50,000.)

W. Va., Wheeling. — Whitaker-Glessner Co. will erect boiler and power plant at Manchester plant; cost \$50,000.

### Flour, Feed and Meal Mills.

Okla., Guthrie.—Gresham Flour Mills Corp., capital \$500,000, incptd. by Frank S. and Phillip Gresham, V. McGg.ern.

Tex., Houston.—Lowery Grain Co., capital \$15,000, incptd. by W. C. and L. O. M. Lowery, C. A. Garza.

### Foundry and Machine Plants.

Ala., Birmingham—Iron.—Ingalis Iron Works Co. has under construction the following: Extend riveting shop 80 ft.; improve beam shop, giving daily capacity of 60 to 70 tons; equip with milling machines, tools, etc.; erect 40x200-ft. shed with overhead electric crane.

Md., Curtis Bay—Car Wheels, etc.—Maryland Car Wheel Co., capital \$1,000,000, incptd. by Raymond L. Berry, 2005 Guilford Ave.; Samuel H. McMillan, Donald H. Sherwood, all Baltimore, Md.; mfre. car wheels, castings, etc.

Miss., Gulfport - Machine Shop. - Smith's Foundry & Machine Works, capital \$50,000,

incptd.; H. J. Guel, R. H. Harrison, Jr., Charles Lindall.

Mo., Hunnewell.-Farmers' Grain & Elevator Co. will increase capital from \$10,000 to \$25,000.

Mo., Springfield. - Interstate Milling Co., Chestnut and Summit Sts., organized with A. C. Daily, Prest.-Treas.: R. E. Laughlin, V.-P. and Mgr.; W. W. Coover, Secy.; will erect 3 mill-construction buildings; 4-story, 68x30 ft.; 2-story, 120x100 ft.; 2-story, 100x68 ft.; daily output, 400 tons mixed commercial feeds. (Lately noted incptd., capital \$250,-

Mo., St. Louis-Oil-well Supplies.-Axelson Machine Co., Los Angeles, Cal., will erect \$250,000 plant for mfre, of oil-well supplies.

Okla., Pawhuska-Steel.-C. H. Loop Steel Mfg. Co., capital \$100,000, incptd. by C. H. Loop, H. V. Baker, Swan C. Burdette.

Tex., Fort Worth-Boilers, etc.—Texas Boiler & Tank Co., capital \$30,000, incptd. by W. A. Atherton, J. S. Burrows, J. E. Cooley.

Tex., Fort Worth-Oil-well machinery.-Fort Worth Well Machinery & Supply Co. increased capital from \$20,000 to \$60,000.

Tex., Westover.-Farmers' Mill & Elevator Co., capital \$22,000, incptd. by Jacob Sykers, G. W. Holman and W. A. Cockrell.

Va., Norfolk - Peanut-cleaning Machines. Whitmore Machinery Syndicate, capital \$150,000, incptd. with J. W. Whitmore, Prest., Dendron, Va.; W. L. Deveney, Jr., Secy., Norfolk; mfre. peanut-cleaning machines.

W. Va., Huntington-Coal-loading Machines. American Coal Loading Machine Corp., capital \$250,000, incptd. by M. R. Martin, D. B. Turner, both Huntington; Leroy Allebach, Charleston, W. Va.

W. Va., St. Albans—Bolts, etc.—Charleston Bolt & Forging Co., capital \$200,000, ineptd. with C. M. Dunnavant, Prest.; H. A. Warne, V.-P.; W. S. Stork, Gen. Mgr. and Secy., all Charleston, W. Va.; will erect plant; install mchy. costing \$100,000; mfre. iron and steel machine, carriage and track bolts of any length and size; also install galvanizing plant for small forgings.

### Gas and Oil Enterprises.

Ark., Eldorado-Refinery.-Constantin Oil & Refining Co. reported to expend \$800,000 on improvements; install refinery and tank farm's.

Ark., El Dorado-Refinery.-El Dorado Refining Co., Texarkana, Tex., organized with W. H. Locker, Prest., Duluth, Minn.; C. C. Bartlett, V.-P., Bartlett, Tex.; reported to erect 5000-bbl. refinery; purchased 2 units of 2000 bbls.

Ark., El Dorado.-Louisiana-El Dorado Oil Co., capital \$200,000, incptd. by B. F. Thompson, O. E. Hodges and J. S. Hunt.

Ky., Bowling Green.—Illinois-Kentucky Oil Syndicate, capital \$50,000, W. B. Cauble, W. H. Slattery and B. A. Wheery; all Peoria, Ill.

Ky., Bowling Green.-United 5 Oil Co., capital \$750,000, incptd. by Herbert A. and Alvyn W. Hover, Melvin Hall.

Ky., Lexington. - O-Hitch Oil Co., F. S. Hutch, 308 First and City Bank, will construct 4000 ft. 2-in. pipe line; bids until May 15; W. L. Craft, Engr., 308 First and City

Ky., Louisville-Refinery.-Dixie Belle Refining Co., 105 Intersouthern Bldg., capital \$650,000, organized with G. H. Murphy, Prest.; F. A. Murphy, Secy-Treas.; reported let contract to construct \$500,000 oil refinery; Carl B. Haun, Supv. Engr., Blackwell, Okla. (Lately noted.)

La., Alexandria. - Rapides Union Oil Co., capital \$60,000, organized with Robert Stack, Prest.; J. F. Hayden, Secy.-Treas.

La., Homer-Pipe Lines.-Standard Oil Co. of Louisiana reported to construct pipe line from tank farm in Homer to El Dorado, Ark.; construct loading racks and storage

La., Jewella, R. D. from Shreveport-Tanks. Shreveport Producing & Refining Corp., Bradford Hearn, Asst. Gen. Mgr., 215 Sinclair Bldg., Shreveport, let contract to Youngstown Boiler & Tank Co., Youngstown, O., to erect 55,000bbl. capacity steel tank at refinery; 50 mi. 4-in. pipe line; 5000-bbl. daily capacity pumping station. (Lately noted under Shreveport, La.)

La., Winnsboro.-Franklin Parish Oil & Gas Co., El Dorado, Ark., and Winnsboro, La., capital \$50,000, incptd. by S. N. Hickman, R. F. Walden and F. N. Scott.

Mo., Springfield.—Wm. E. Willis and W. J. Smiley, Richards, Mo., plans erection unit type refinery, with initial daily capacity of 500 bbls.; cost \$100,000. (Lately noted under Richards, Mo.)

Okla., Beggs.-Queen Oil & Gas Co., capital \$200,000, incptd. by J. G. Dilley, C. W. Steele, Ed. Neal.

Okla., Cushing. - Newham Oil Co., capital \$150,000, ineptd. by E. H. Newman, Jas. J. Mc-Neil! and S. J. Borton.

Okla., Duncan. - Producers' Petroleum Co., Wichita Falls, capital \$250,000, incptd. by Jno. O'Donahue, W. M. McGregor and C. E. Mc-

Okla., Hewitt-Pumping Station. - Sinclair Pipe Line Co., Tulsa, Okla., is constructing pumping station on lease in Hewitt field.

Okla., Lawton-Pipe Line.-Damascus Pipe Line Co., capital \$100,000, ineptd. with W. G. Black, Prest.; W. W. Brunskill and W. D. Calkins; let contract to P. J. O'Brien to construct 4-in, pipe line from Parsons Gant field to refineries at Lawton.

Okla., Lawton-Tanks.-Lawton Star Refinery let contract to erect two 10,000-bbl., one 1000-bbl. and one 500-bbl. steel storage tanks at plant.

Okla., Perry.-Perry Natural Gas Co., capital \$100,000, incptd. by Geo. H. Mouser, H. L. Boyes and H. C. Jackson.

Okla., Tulsa.-Don Curbur Petroleum Co., capital \$25,000, ineptd. by Don M. Crump, Curtis F. Bryan and B. H. Crawford.

Tex., Dublin-Tanks.-Humble Oil & Refining Co., R. S. Sterling, Prest., Houston, Tex., let initial contract to Reid & Cole; will con-struct 15 steel storage tanks, with 55,000 bbls. capacity each, on tank farm; increases storage capacity to 2,750,000 bbls.

Tex., Graham.-Graham Refining Co., capital \$200,000, organized with J. G. Kilgore, Prest.; E. S. Graham, Treas.; E. N. McClusky, Secy.; construct 10 mi. 3-in. pipe line; 2500-bbl. daily capacity pumping station.

Tex., Texarkana. — Farmers' Oil & Refining Co., Z. W. Drake, Prest.-Mgr., contemplates increasing plant capacity from 1000 to 2000

Va., Newport News. - Newport News & Hampton Ry., Gas & Electric Co., J. N. Shannahan, Prest., Hampton, Va., increases capital from \$4,000,000 to \$5,000,000.

### Hydro-Electric Plants.

Ala., Birmingham.-Alabama Power Co., W. N. Walmsley, V.-P. and Gen. Mgr., secured permission from Public Service Comsn. to issue and sell \$25,000,000 mortgage bonds and issue and sell additional preferred stock totaling 10,000 shares for additional unit at Duncan's Riffle.

Fla., Marianna.-G. M. Thomas will con-

Electro Co., Engr., Albany, Ga. chinery Wanted - Waterwheels; Generators; Transmission Lines; Miscellaneous Electrical Equipment.)

N. C., Hickory. - Falls Mfg. Co., Granite Falls, N. C., have under construction hydro-electric plant on Upper Little River; 400 H. P.; Berry-Fortune Construction Co., Contr.

N. 'C., Hickory.-North State Cotton Mills, Taylorsville, N. C., have under construction hydro-electric plant on Lower Little River; 200 H. P.; Berry-Fortune Construction Co., Contr.

Va., Halifax.-Halifax Power Co. has under construction \$350,000 hydro-electric plant on Bannister River; increase capacity of present wooden dam from 8-ft. head of water to 25 ft.; capacity 1350 H. P.; furnish lights and power for Halifax and South Boston; Wm. C. Whitney & Co., Conslt. Engrs. and Contrs., Richmond, Va.

### Ice and Cold-Storage Plants.

Ky., Scottsville,-Rock City Machine Co., J. D. Stone, Nashville, Tenn.; plans erecting building and installing 10-ton ice plant.

Va., Chatham-Chatham Ice Co. will improve plant.

W. Va., Logan. — Haislip & Co., capital \$200,000, incptd. by Fred. Haislip, D. E. Coburn, both Logan; W. W. Starkey, Huntington, W. Va., will install cold-storage department in wholesale produce plant.

### Irrigation Systems.

Tex., Garwood.-Garwood Irrigation Co. has under construction 5-mi. canal; gravity flow; \$10,000; irrigate 6000 acres land for rice farming; build reinforced concrete bridges; \$5000; contract to Frank Otto, Garwood, Tex., for concrete work and Larson Bros. Eagle Lake, Tex., for dirt work; Wm. K. Lehrer, Mgr. (Lately noted.)

### Land Developments.

Ark., Sulphur Springs .- Ozark Colony Assn. ineptd. with \$25,000 capital.

Fla., Leon and Jefferson Counties .- El Destino Plantation Co., temporary office 209 Oak Ave., Takoma Park (Washington, D. C.), organized with J. A. Evans, Prest.; F. M. McLaughlin, Secy.; both Washington, D. C.; D. H. Rice, Treas., Towson, Md.; J. R. Palmer, Res. Mgr., Capitola, Fla.; plan developing about 10,000 acres in muscadine grapes and other fruits, sugar cane for syrup, corn, potatoes and other vegetables; peanuts, etc., balance in timber and pasture. (Lately noted under Tallahassee, Fla., incptd., capital \$250,000.)

Fla., Miami.-Southland Nurseries, capital \$150,000, incptd. with Edw. Roney, Prest., Miami; John W. Ross, Secy.-Treas., Philadelphia, Pa.

Fla., Ocala,-Florida Orange Grove Corp., C. P. Anderson, Prest., Pittsburgh, Pa., and Ocala, Fla., will develop 500 acres in citrus fruits; will establsh packing plant.

Fla., Orlando.-Orlando Growers' Co., capital \$500,000, organized with T. P. Warlow, Prest.; E. G. Duckworth, Secy.-Treas.; will develop 6500 acres in citrus-fruit and for nursery purposes.

Fla., Tallahassee.-Shenandoah Improvement Co., capital \$200,000, incptd. with W. W. Gates, Prest.; C. H. Ward, Secy.-Treas.

Fla., West Bay.—Seminole Plantation, capital \$100,000, incptd. with Henry B. Plant, Prest.; Ernest Pope, Secy.-Treas.

Tex., Beaumont. - Magnolia Cemetery Co. struct 200 H. P. hydro-electric plant; Albany will expend \$100,000 to improve and enlarge

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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cemetery; secured 10-acre plot; construct driveway, etc.

Tex., Denton.-Voted \$75,000 park bonds; H. V. Hennen, Mayor. (Lately noted to vote.)

### Lumber Manufacturing.

Fla., Manatee.—Updegraff Lumber Co. will enlarge and imprave planing mill, etc.

La., Holly Ridge.—Chess-Wymond Lumber Co. will expend \$200,000 on rebuilding burned plant.

La., New Orleans.—Southern Hardwood Lumber Co., Charles R. Currie, will erect planing mill and dry klins.

Md., Baltimore.—Weyerhaeuser Timber Co., Lexington Bldg., will erect 1-story 128x144-ft. planing mill at Fairfield plant.

Mo., Ash Grove.—Burgner-Bowman Lumber Co. will erect plant; purchased site.

N. C., Duplin, Onslow and Pender Counties.—Rowland Lumber Co., Norfolk, Va., have purchased timber tract; about 200,000,000 ft.

Tex., Hallville. — E. C. Sloan & Son has under construction saw and planing mill, daily capacity  $40,000~\rm{ft}$ .

Va., Bedford.—Peaks of Otter Lumber Co., capital \$100,000, organized with J. Mott Lindsuy, Prest.; will install planing and resawing mehy. (See Machinery Wanted — Building Material.)

### Metal-Working Plants.

Ga., Brunswick—Automobile Rims.—Sam E. Browne and others will organize company to mfre. automobile rims; plans to erect plant.

Ky., Dayton—Metal Products.—Stayer Mfg. Co., capital \$50,000, incptd. by John Fitzgerald, Louis Gianopulos, George W. Styer.

La., New Orleans—Beds.—Simmons Mfg. Co., Geo. H. Milne, V.-P., Kenosha, Wis., have leased 4-story building to establish branch; probably build later; S. M. Douglas, Dist. Manager.

Tex., Dallas — Burglar Alarm.—Safety Burglar Alarm Co., capital \$25,000, incptd. by R. A., A. L. and N. E. Pringle.

Tex., Dallas—Roofings, Sidings, etc.—Berger Mfg. Co., Canton, O., Geo. P. Galvin, local Mgr., let contract for 200x200-ft. mill-construction building, costing \$100,000; mehy. purchased; mfre. culvert pipe, roofing, siding and ceilings. (Lately noted to establish branch plant.)

W. Va., Charleston — Autostart. — Autostart Mfg. Co., capital \$50,000, incptd. by E. L. Rose, C. H. Peterson, S. R. Kay.

### Mining.

Ala., Anniston — Mica. — Alabama Mica & Mfg. Co., principal office 110 E. Lexington St., Baltimore, Md., Incptd. with Harry H. Wand Prest., and Hugh Brown, V.-P.; both Chattanooga, Tenn.; A. Albert Tapley, Treas., Heffin, Ala.; will erect plant for reduction and grinding of mica, also to mfre. discs. washers and sheets; acquired 206 acres Muscovite mica deposits in Randolph County, Ala.; H. L. Clapham, Baltimore Agt. (See Machinery Wanted—Mica-mining Machinery.)

Ark., Mena-Manganese.—Cooper Mining & Development Co., Cooper, Tex., will develop manganese ore land.

Okla., Miami—Lead and Zinc.—New Federal Lead & Zinc Co., capital \$100,000, incptd. by J. P. Whatley, Oklahoma City; E. W. Yakish, Broken Arrow, Okla.; W. V. French, Nowata, Okla.

Tex., Dallas—Stone,—Texas Stone Products Co., capital \$22.000, incptd. by J. N. Ivy, Fred Webb, F. P. Warren, Tex., Wichita Falls—Sand and Gravel.— Western Sand & Gravel Co., capital \$100,000, incptd. by J. C. Jopling, J. A. Bobo, J. Y. Holbrook.

### Miscellaneous Construction.

Ga., Savannah-Swimming Pool.—Will construct swimming pool in Daffin Park; Park Supt. Robertson and City Engr. Rockwell in charge of construction.

Md., Baltimore — Heating Plants. — Public Improvement Comsn. approved renewal and repairing of heating plants in 18 schools in a various parts of city, costing above \$50,000; Henry G. Perring, Ch. Engr.

'Mo., Kansas City-Dike.-Contemplates expending \$968.000 on east bottom dike, 6.85 mi. long; Robert W. Waddell, City Engr.

Mo., Macon — Heating Plant. — Will install heating system in Central High School building: contemplates voting on \$20,000 bonds. Address The Mayor.

Tenn., Nashville — Terminals. — A. J. Dyer, Chrmn. Board of Transportation, will construct river terminals, estimated cost \$300,000; bids until May 16. (Lately noted bids Apr. 15.)

### Miscellaneous Enterprises,

Ala., Alexander City—Potato Curing.—H. Herzfeld has 30x80-ft. and 25x75-ft. buildings; will equip for sweet potato curing according to Government specifications. Lately noted. (See Machinery Wanted—Baskets.)

Ala., Gadsden-Potato Curing.-J. W. Penn, Prest., Chamber of Commerce interested in establishing sweet potato curing plant.

Fla., Miami—Plumbing.—Buckeye Plumbing Co., capital \$25,000, incptd. by C. H. Neff, George and A. C. Reebel.

Fla., Miami—Engineers.—Sandquist & Snow, capital \$25,000, ineptd. with O. A. Sandquist, Prest.; Edward L. Semple, V.-P.; A. W. Snow, Secv.-Treas.

Miss., Hattiesburg — Construction. — Myers Construction Co., capital \$100,000, incptd. by F. T. Myers, Hattiesburg; R. T. Myers and J. A. McCain, both Meridian, Miss.

Miss., Natchez-Laundry. - Excelsior Steam Laundry, capital \$20,000, incptd. with W. H. Berdon, Prest.; E. W. Salvo, Secy.

Mo., St. Louis—Roofing and Paving Materials.—Randolph Materials Co., E. L. Musick, Mgr., will rebuild 70x50-ft. building of ordinary construction. (Lately noted burned.)

Mo., St. Louis—Laundry.—Excelsior Laundry Co., George W. Burley, Secy., have purchased 140x233-ft. site; will erect laundry building; Leonard Haeger, Archt.

Mo., St. Louis—Printing.—Con P. Printing Co., 102 S. 8th St., will erect 2-story 110x115ft. building; brick and coherete construction; P. J. Bradshaw, Archt., International Life Bldg.

N. C., Asheville—Publishing.—Citizens' Publishing Co. acquired building; will remodel and install new equipment.

N. C., Lexington — Construction, — Medrick Construction Co. organized with \$250,000 capital.

N. C., Raleigh—Contractors and Engineers. C. V. York Construction Co., 239 Fayetteville St., organized with C. V. York, Prest.; Raymond Booth, V.-P.; L. A. Murr, Secy.-Treas. (Lately noted incptd., capital \$11,000.)

N. C., Winston-Salem-Films.-North State Film Co., capital \$65,000, incptd. by P. N. Montague and Watt Martin, Jr.

Okla., Cherokee — Fire Equipment. — Voted \$60,000 bond for fire department and extensions to lighting plant. Address The Mayor.

Okla., Oklahoma City-Publishing.-Harlow

Publishing Co. increased capital from \$50,000 to \$125,000.

Okla., Oklahoma City—Engineering. — Geological Engineering Co., capital \$30,000, incptd. by D. W. Ohern, Frank Buttram, Irving Perrine.

Okla., Tulsa—Drugs.—Getman Drug Co., capital \$125,000, incptd. by Roy R. and Winnifred G. Getman, G. E. Summers.

Okla., Tulsa—Contracting.—Tulsa Contracting Co., capital \$15,000, incptd. by Paul C. Hughes, Fred. W. Kropplin, E. L. L. La Cour.

S. C., Greenville — Engineering. — Jones & Trott, 434 S. Main St., capital \$59,900, incptd. with 'Henry Olin Jones, Prest. Treas.; Henry Rivers Trott, V.-P.-Secy.

Tenn.. Chattanooga — Publishing. — Chattanooga News Co. increased capital from \$150,000 to \$250,000.

Tex.. Fort Worth—Incinerator.—City Comsn. let contract to Superior Garbage Incinerator Co. to erect fourth city incinerator.

Tex., Houston—Steamship Line.—Houston—Tampico Steamship Co., capital \$1,000,000, incptd. by Arthur W. Britton, 65 Cedar St.; Samuel B. Howard, Austin H. Smith., all New York city.

Tex., San Antonio - Printing. - Southwest Texas Printing Co., capital \$25,000, incptd. by Clifton George, J. O. Naylor, T. W. Lillie.

Tex., Tulia—Hardware.—Scott-Tracy Hardware Co., capital \$150,000, incptd. by H. H. Tracy, E. B. Baker, J. F. Moore.

Tex., Waco-Hardware,-Herrick Hardware Co. increased capital from \$200,000 to \$250,000.

Va., Relee, P. O. South Washington—Abattoir.—N. Auth Provision Co., 623 D St. S. W. Washington, will erect 3-story 93x166 ft. abattoir building with refrigerating system; bids open; Julus Wenig, Archt., 721 10th St. N. W., Washington, D. C.

Va., Richmond—Publishing.—Times-Dispatch Publishing Co. increased capital from \$1,000,-000 to \$1,400,000.

W. Va., Charleston—Engraving.—Charleston Engraving Co., capital \$10,000, incptd. by M. P. Wright, Thomas E. Marshall, H. S. Mathews.

W. Va., Logan — Laundry. — Ideal Laundry Co., M. G. Cole, Mgr., will establish steam laundry.

### Miscellaneous Factories.

Ala., Birmingham—Candy.—Standard Candy Co., Nashville, Tenn., will establish branch plant to mfre. candy; A. W. Beckwith, Local Mgr.

Fla., Live Oak—Hog Tonic.—Florida Products Co., capital \$25,000, incptd. by L. S. Harvard, C. H. Tedder.

Fla., Marianna — Ice Cream, etc. — West Florida Ice Cream & Dairy Co. will establish plant to mfre. ice cream and handle dairy products.

Fla., Ocala — Books. — George Washington Book Co., capital \$50,000, incptd. with David S. Woodrow, Prest.; John J. Gerig, V.-P. and Treas.; A. Blair Woodrow, Secy.

Fla., Palm Beach—Palm Beach Roll.—Palm Beach Roll, capital \$25,000, incptd. with Gus Jordhan, Prest.; W. E. Keen, Secy.-Treas.

Fla., Tampa—Drugs.—Snow Drug Co., capital \$20,000, incptd. with F. A. Snow, Prest.; W. L. Pencke, Secy.-Treas.

Ga., Atlanta—Insecticide.—Morgan Chemical Corp., E. R. Harriman, Prest., Ogdensburg, N. Y., contemplates establishing insecticide plant; cost \$1,000,000.

Ky., Owensboro — Tobacco. — Ross-Vaughan Tobacco Cσ. increased capital from \$90,000 to \$275,000.

Ky., Louisville-Tannery.-Daniel Wagner &

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Sons increased capital from \$400,000 to \$600,000. (Formerly Wm. Schuff & Co.)

Ky., Louisville—Tobacco Products.—R. M. Dearing & Co., capital \$10,000, incptd. by R. M. and Jas. B. Dearing, M. E. Turner.

Ky., Winchester-Washing Powder.-Lowry Mfg. Co., capital \$10,000, incptd. by E. A. and Sadie M. Lowry, Edward C. Epperson.

La., New Iberia—Ice Cream.—New Iberia Ice & Cream Co., capital \$30,000, incptd. by John H. Slaughter, Jr., John A. Spekenhier and Daniel T. Cushing; all Bogalusa, La.

La., New Orleans—Soap.—J. S. Long Co. will erect 300x100-ft. steel frame and corrugated-iron building; equip to manufacture soap.

Md., Baltimore—Chocolates.—Wandell Chocolate Co., 113 Water St., increases capital from \$2,700,000 to \$24,800,000.

Md., Baltimore—Bottling.—Julo Bottling Co., Louis Miller and Ezekiel C. Fox, both 363 N. Calvert St., let contract to Louis Ulman, 418 Aisquith St., to creet 1-story 69x30 ft, bottling plant; Geo. R. Callis, Jr., Archt., American Bldg. (Lately noted.)

Md., Baltimore – Rubber Heels. – Hold-Tite Rubber Co. purchased site at Warner and Ostend Sts.; reported to establish plant to manufacture rubber heels and novelties.

Md., Baltimore—Ice Cream, etc.—Crane Ice Cream & Baking Co., L. G. Schumaker, Spruce St., Philadelphia, Pa., will establish plant to mfre, ice cream; K. W. Shantz, Archt.-Engr., Buffalo, N. Y.

Md., Baltimore — Ice Cream. — Horn Ice Cream Co., Henry W. Hofferbert, Prest., 486 Aisquith St., let contract to Consolidated Engineering Co., 243 Calvert Eldg., to erect 2-story brick addition to plant and 1-story brick boiler-house; include 60-ton ice and 20,000-gal. daily capacity ice-cream plant, (Previously noted.)

Md., Hagerstown—Fibre Products.—Maryland Fibre Products Co., capital \$150,000, incptd. by Mark H. Landis, Richard G. Stevenson and Thos. M. Cunningham. (Lately noted.)

Miss., Jackson—Optical Goods. — Mississippi Optical Co., capital \$10.000, incptd. by E. C. and M. R. Ebert, E. L. Pleasants.

Mo., Independence—Polish.—Ever-Gloss Co., capital \$25,000, incptd. by Walter Betts, L. Scarborough, both Independence; W. B. Brady, Kansas City, Mo.; establish plant to mfre. furniture polish.

N. C., Asheville-Creamery.-R. E. Kibler contemplates erection fireproof creamery.

N. C., Reidsville—Tobacco.—American Tobacco Co., C. A. Penn, V.-P., 111 5th Ave., New York, reported to erect 5-story drying plant and stemmery building; John D. Briggs, Archt. and Ch. Engr., Raleigh, N. C.

Okla., Oklahoma City—Toilet Specialties.— Heywood Toilet Specialties, capital \$50,000, included by Helen De Young, Edgar Berry and Lorer C. Sage.

Okla., Okmukgee—Paint and Glass.—Bursdall Paint & Glass Co., capital \$10,000, incptd. by J. W., E. J. and Alice Bursdall.

S. C., Columbia—Chemicals,—Miller-Lambert Chemical Co., Mayhew Lambert, Prest.-Treas., plans increasing capital to \$25,000.

S. C., Greenville—Bottling.—Bludwine Bottling Co., capital \$20,000, incptd. by B. B. Estridge and T. M. Langston.

Tenn., Lewisburg—Milk Condensing.—Chapin-Sacks Co., Washington, D. C., plans erecting milk-condensing plant; cost \$400,000 to \$500,000.

Tenn., Nashville—Syrup, etc.—E. M. Johnson. Evansville, Ind., leased several buildings; will establish plant to mfre. syrup and starch from sweet potatoes.

Tex., Brownwood — Paint. — Renfro-Justus Paint Co., capital \$10,000, incptd. by J. F. Renfro, C. B. Justus and O. J. McInnis.

Tex., Dallas—Novelties, etc.—Dallas Art & Novelty Co., 1609 Hughes Circle, capital \$250,000, organized with Geo. S. Sprague, Prest.; Arthur Pratt, Secy.-Treas.; E. L. Henderson, Mgr.; has building; installed machinery to mfre, advertising novelties and calendars.

Tex., Fort Worth-Ice Cream.-Perfection Ice Cream Co., capital \$50,000, incptd. by E. J. Roberts, J. S. Burrows and W. A. Atherton.

Tex., Houston—Ice Cream, etc.—R. H. Fonville, Hardy and Noble Sts., will erect 2-story reinforced concrete factory building to mfre. ice cream and pasteurize milk.

Tex., Olden — Mattresses. — Direct Mattress Co., capital \$20,000, incptd. by W. A. Atherton, J. S. Burrows and J. E. Cooley.

Va., Danville—Creamery.—L. J. Feldman and Jos. Sauerback, Cincinnati, O., plan establishlng \$50,000 creamery.

Va., Lynchburg — Shoes. — Craddock-Terry Co., plans increasing capital from \$5,000,000 to \$10,000,000. Va.. Portsmouth — Bakeries, — American

Va., Portsmouth — Bakeries, — American Bakeries Co., capital \$25,000, incptd. with J. Harwood Graves, Prest., Washington, D. C.; Olinus Smith, Secy., Portsmouth.

Va., Richmond — Chemicals. — Universal Chemical Co., capital \$100,000, incptd.; H. L. Jones, Prest., Norfolk, Va.; J. McD. Woolford, Secy., Richmond.

Va.. Richmond — Auto Polish, etc. — Master Products Co., 1107 E. Cary St.. organized with E. R. Aiken, Prest.; J. A. Paythress, Secy.-Treas.; has building: install can and bottle filling machinery; mfre. insecticide and auto polish; bids until Aug. 1. Lately noted incptd., capital \$50,000. (See Machinery Wanted—Cans; Can-filling Machinery.)

Va., Suffolk—Ice Cream, etc.—Suffolk Ice Cream Corp., capital \$40,000, incptd. with E. Swope, Prest.; M. T. Saunders, Secy.-Treas.

v. Va., Fairmont-Glass.-Monongah Glass Co., R. T. Cunningham, Secy., plans increasing capital from \$1,000,000 to \$2,500,006.

W. Va., Williamson—Celery Cola.—Celery Cola Co. organized with Gus J. Moon, Prest.; J. T. Grimsley, Secy.-Treas.; J. C. Mayfield, Mgr.; will install machinery to mfre. syrup. (Lately noted incptd., capital \$50,000.)

### Motor Cars, Garages, Tires, Etc.

Ala., Birmingham—Repairing—Gary-Hardman Auto-Repair Co., capital \$10,000, incptd. with H. W. Myers, Prest.; T. M. Hardman, V. P.-Mgr.; W. H. Gary, Secy.-Treas.

D. C., Washington—Automobiles.—District Haynes Corp., capital \$50,000; inept. with Wm. and Lillian McKee Lininger, both Washington; Sylvester L. V. Young, Hagerstown, Md.

Md., Baltimore — Automobiles. — Cochrane Sales Co., Si0 N. Charles St., capital \$100,000, incptd. with Wm. F. Cochrane, Richard B. Roche, Wm. R. Wiest.

Md., Baltimore — Automobiles. — Apperson Motor Co., 1301 Fidelity Bldg., capital \$50,000, incptd. with John D. Nock, Irvin J. Sullivan, Earle M. Davis.

Md., Baltimore — Motors. — Williams-Eifert Motor Co., Cathedral and Preston Sts., capital \$75,000, incptd. with Richard E. Preece, Wm. M. Travers, R. E. Lee Young.

Md., Baltimore—Automobile Repair.—Jacques Guarantee Automobile Repair Club, 718 N. Howard St., capital \$15,000, incptd. with Jacques Morise, Richard E. Slater, A. Marie Dalton

Md., Cumberland — Automobiles. — Paragon Motor Car Co., capital \$3,000,000, incptd. with

Philip W. Blake, Prest.; will erect plant for mfre. of motor cars; has site.

Mo., Springfield—Tires.—Rubber Tire Supply Co. increases capital to \$85,000.

N. C., Charlotte — Automobiles. — Southern Distributing Co., capital \$50,000, incptd. with D. E. Henderson, Frank H. Kennedy, Minnie Gallant.

N. C., Charlotte-Garage.—J. M. Clark will erect garage: 1 story: 94x80 ft.; brick, with plate-glass front; steel window frames; tapestry brick, with limestone trimmings; Goode Construction Co., Contr.

N. C., Greensboro-Garage.-Guilford Motor Car Co. will erect garage,

N. C., Greensboro—Garage.—J. E. Latham Co. will erect \$50,000 to \$60,000 garage.

N. C., Lincolnton-Tire Patches.—Champion Tire Patch Co. (lately noted incptd., capital \$50,000) organized with Kemp B. Nixon, Prest.; B. C. Lincberger, V.-P.; M. M. Rudisill, Secy.-Treas. (See Machinery Wanted-Buffers; Containers; Labeling Machines, etc.; Engraving, etc.)

Tex., Dallas—Service Station.—Alemite Lubricator Co., John W. Reidy, Prest. and Gen. Mgr., will erect 89x100-ft. service station; mill construction; \$9000; Christy-Dolph Construction Co., Contr.; F. J. Woerner & Co., Archt., 503 Sumter Bldg.

Tex., Dallas—Garage.—Stanley Crabb will erect garage; 1 story; brick; \$11,500.

Tex., Fort Worth-Filling Station.-Montrose Oil Refining Co. will erect filling station.

Tex., Houston.—Bering Tire & Repair Co. increased capital \$50,000.

Tex., San Antonio — Automobiles. — Stroud Motor Mfg. Co., capital \$2,000,000; incptd. by Sam W. Stroud, Ben Hoerster, F. W. Lemburg.

Va., Dungannon.—Dungannon Motor Co., O. E. Bevins, Mgr., has under construction \$5000 garage; 50x80 ft.; fireproof; install \$5000 mchy.; H. Doriot, Archt., Bristol, Va. Lately noted organized. (See Machinery Wanted—Tank; Pump; Automobile Accessories.)

Va., Virginia Beach—Automobiles.—Virginia Beach Motor Co., capital \$25,000, organized with T. F. Douglass, Prest.; W. T. Jarvis, Secy.

W. Va., Fairmont—Garage.—Central Automobile Corp. will erect garage; 2 story and basement; 60x120-ft. site; reinforced steel and concrete.

W. Va., Mannington-Garage.-J. V. Mullen will erect garage; 2 story; 60x100 ft.

W. Va., Weston-Garage.—G. I. Keever will erect garage; 2 stories and basement; 103x115 ft.; brick walls; Albert Breternitz, Archt., Fordyce Bidg., Clarksburg, W. Va.

W. Va., Weston—Garage.—Hodd & Dent will erect garage; I story; 72x152 ft.; brick; tile; wood roof; Albert Breternitz, Archt., Fordyce Bidg.. Clarksburg, W. Va.

### Road and Street Construction.

Ala., Birmingham. — Jefferson County will grade and surface one-half mi. Flat Creek Rd. to county line; 4 mi. Flat Creek Rd. to Praco; 2 mi. Green Springs Rd. to Montgomery Highway; bids until May 3; C. J. Rogers, County Highway Engr. (See Machinery Wanted—Road Construction.)

Ala., Livingston.—Sumter County will sell \$55,000 bonds for road construction; E. F. Allison, Prest. Board of Revenue.

Ala., Mobile.—Mobile County will gravel road from Union Church to Grand Bay; will invite bids; John D. Hagan, Prest. Board of Revenue and Road Commrs.

Ala., Montgomery.-Will construct 18,500 sq.

yds. paving; Portland cement, concrete, brick, sheet asphalt, asphaltic concrete or bitulithic; bids until Apr. 21; W. A. Smith, City Clk. (See Machinery Wanted—Paving.)

Ala., Tuscumbia.—Let contract to Mitchell Bros., Oneonta, Ala., for paving 4 blocks streets; concrete; \$30,000. Address The Mayor.

Fla., Bradentown.—Will pave streets; \$24,-000; Harry Wadham, Commr. Public Works.

Fla., Fort Pierce.—Saint Lucie County will construct 8 mi. Sebastian-to-Fellsmere highway; \$20,000; construction by county; contract to Greynolds & Monroe, West Palm Beach, Fla., for hauling and spreading rock. Address County Commrs.

Fla., Kissimmee.—Osceola County will construct 6 ml. hard-surface road in Special Road and Bridge Dist. No. 4; bids until May 7; J. L. Overstreet, Clk. County Commrs. (See Machinery Wanted—Road Construction.)

Fla., Kissimmee.—Osceola County will construct road and bridges across Jane Green Swamp; bids until Apr. 23; J. L. Overstreet, Clk. County Commrs. (See Machinery Wanted—Road Construction.)

Fla., Sebring.—Will improve streets, electric light and water-works; voted \$250,000 bonds, Address The Mayor.

Fla., South Jacksonville. — Will construct 35,000 sq. yds. asphalt block or brick paving; 36,000 lin. ft. concrete curb and gutter or granite curb; bids until May 17; R. M. Rogero, City Clk. (See Machinery Wanted—Paving.)

Fla., Tavares.—Lake County may construct 58 mi, roads and reconstruct 123 mi. roads; vote May 10 on \$600,000 bonds. Address County Commrs. (Lately noted.)

Ga., Marietta.—Will pave 7 mi. streets; voted bonds. Address The Mayor.

Ga., Sylvania.—State Highway Dept. will construct 11 ml. road between Newington and Sylvania; \$40,000.

Ga., Sylvester.—Worth County let contract to Nicholls Contracting Co., Atlanta, Ga., for 4½ mi. gravel road; Federal-aid Project No. 213; O. H. Lang, Engr., Moultrie, Ga. (Lately noted inviting bids.)

Ky., Prestonsburg.—Will pave streets and construct sewers; bids until Apr. 15; W. C. Goble, City Clk. Lately noted inviting bids Mch. 15. (See Machinery Wanted—Paving.)

La., Abbeville. — Vermilion Parish Road Dist. No. 1 will construct 26 mi. earth and 21 mi. gravel-surfaced roads; bridges; \$350,-000 available; bids until May 21; T. H. Mandell, Engr., Lake Charles, La. (See Machinery Wanted—Road Construction.)

La., Jena. — Highway Dept. Board State Engrs., 332 Maison Blanche Annex, New Orleans, La., will construct 14.52 ml. Jena-Alexandria highway, La Salle Parish; bids until May 10; Duncan Bule, State Highway Engr. (See Machinery Wanted—Road Construction.)

Md., Baltimore.—Will grade, curb and pave streets listed in Contract No. 182-OC; 33.659 sq. yds. sheet asphalt; 2650 sq. yds. yltrified brick; 4650 sq. yds. granite block redressed; bid: until May 4; Howard Bryant, Prest. Board of Awards. (See Machinery Wanted— Paying.)

Md., Baltimore.—State Roads Comsn., 601 Garrett Bldg., Baltimore, will construct .57 mi. State highway along Liberty Heights Ave. from end Contract BC-13 to Hamilton Ave.; sheet asphalt on concrete base; Baltimore City, Contract BC-33; bids until Apr. 26. (See Machinery Wanted—Road Construction.)

Md., Centerville.—State Roads Comsn., 601 Garrett Bldg., Baltimore, will construct 2 mi. State highway from Sudlersville toward Barclay; concrete; Queen Anne's County,

Contract Q-15; bids until Apr. 26. (See Machinery Wanted-Road Construction.)

Md., Frederick. — State Roads Comsn., 601 Garrett Bldg., Baltimore, will construct 5 mi. State highway, from end Contract F-7B extended at Bartonsville road along Frederickpike to New Market; concrete shoulders; Frederick County, Contract F-7C; bids until April 26, (See Machinery Wanted—Road Construction.)

Md., Rockville.—State Roads Comsn., 601 Garrett Bldg., Baltimore, will construct 2.86 mi. State highway from State road at Gaithersburg to Laytonsville road; concrete; Montgomery County, Contract M-24; bids until Apr. 26. (See Machinery Wanted.—Road Construction.)

Md., Salisbury.—State Roads Comsn., 601 Garrett Bldg., Baltimore, will construct 3.72 mi. State highway from end Contract WI-13 to beginning of Contract 522, near Royal Oak; concrete; Wicomico County, Contract WI-14; bids until Apr. 26. (See Machinery Wanted—Road Construction.)

Md., Towson.—State Roads Comsn., 601 Garrett Bidg., Baltimore, will construct 2 mi. State highway from end of Contract 400 glong North Point road toward Eastern Ave.; concrete; Baltimore County, Contract B-43; bids until Apr. 26. (See Machinery Wanted— Road Construction.)

Md., Upper Marlboro.—State Roads Comsn., 601 Garrett Bidg., Baltimore, will construct 1 mi. State highway from end Contract P-16A toward Lanham; concrete; Prince George's County, Contract P-22; also 1 mi. State highway from end Contract P-17 along Central Ave. toward Halls Station; concrete; Prince George's County, Contract P-23; bids until Apr. 26. (See Machinery Wanted—Road Construction.)

Miss., Charleston.—Tallahatchie County will construct highway between Charleston and Philippi; sold \$200,000 bonds. Address County Commus

Miss., Columbus.—Lowndes County let contracts for Jackson highway, connecting Mississippi road with Alabama road into Lamar County and connecting highway with Noxube County rock road. Address County Commrs.

Miss., Forest.—Scott County will sell \$110,-000 bonds for road construction; B. R. Nichols, Clk,

Miss., Jackson.—Let contract to John Gerkins, Pascagoula, Miss., at \$45,000, for paving 15,000 sq. yds. W. Capitol St.; concrete; A. J. Johnson, City Clk. (Lately noted inviting bids.)

Miss., Jackson.—Hinds County will construct 5 ° mi. State trunk road between Jackson and Clinton; Federal-ald Project No. 115; 55.554 sq. yds. paving; bids until May 10; H. C. Dietzer, State Highway Engr., Jackson, Miss, (See Machinery Wanted—Road Construction.)

Miss., Vicksburg.—Warren County will sell \$50,000 bonds of Dist. 3 for road construction; Alex. Fitzbugh, Chrmn. County Highway Commrs.

Mo., Forsyth.—State Highway Dept., Jefferson City, may invite bids on 2.27 mi. road through Branson Dist. and 1.83 mi. road in Hollister-Kirbyville Road Dist., Taney County; \$27,779; H. P. Moberly, Div. Engr., Jefferson City.

Mo., Grant City.—State Highway Dept., Jefferson City, Mo., will construct 1.04 mi. State road from Grant City; Federal-aid Project S 20.20; \$26,096.50; bids until April 26; A. C. Singley, Div. Engr., St. Joseph, Mo. (See Machinery Wanted—Road Construction.)

Mo., Kansas City.—Will pave Lexington Ave. and Central St.; bituminous concrete; 39th and 48th Sts.; sheet asphalt; Charlotte St.; concrete. Address Board Public Works.

Mo., Liberty.—State Highway Dept., Jefferson City, Mo., will construct 11.93 mi. Federal Aid Project 6, Section B; bituminous macadam; \$294.875.37; lo.6 mi. Federal Aid Project 99; \$51,550.48; both Clay County; bids until Apr. 25; A. C. Singley, Div. Engr., St. Joseph, Mo. (See Machinery Wanted—Road Construction.)

Mo., New Madrid.—State Highway Dept., Jefferson City, Mo., let contract to A. Manegold, St. Louis. Mo., at \$47,730.60 for 3.918 mi. Federal-aid Project No. 120; width 24 ft.; 36.855 sq. yds. novaculite gravel pavement; also 4 bridges; M. S. Murray, Div. Engr., Sikeston, Mo. (See Bridges, Culverts and Viaducts.)

Mo., New Madrid.—State Highway Dept., Jefferson City, Mo., let contract to W. D. Lonergan at \$237,351.89 for 19.81 mi. Federal-aid Project No. 40; width 24 ft.; 186,658 sq. yds.; 16-ft. gravel-surfaced pavement; also 4 bridges; M. S. Murray, Div. Engr., Sikeston, Mo. (See Bridges, Culverts and Viaducts.)

Mo., Plattsburg.—State Highway Dept., Jefferson City, Mo., let contract to Cook & O'Brien, Kansas City, Mo., at \$25,608.72 for 2.17 ml. State road from Plattsburg; State-aid Project S 20.23; A. C. Singley, Div. Engr., St. Joseph, Mo.

Mo., Poplar Bluff.—Butler County will construct portion of St. Louis road; bids until April 39; J. C. Nickey, County Engr.

N. C., Chadbourn.—Will pave streets and improve water-works; voted bonds. Address The Mayor.

N. C., Elkins.—Will pave streets; cement; \$100,000; invites bids; H. T. Brown, Engr. Lately noted. (See Machinery Wanted—Paving.)

N. C., Kenansville.—Duplin County will sell \$300,000 bonds for road and bridge construction; Jas. J. Bowden, Clk. County Commrs.

N. C., Louisburg.—Franklin County will sell \$10,000 bonds of Cypress Creek Township for road construction. A. E. Spivey, Secy. Road Comsn.

N. C., Mebane.-Will sell \$155,000 bonds for street improvements; W. S. Crawford, Mayor.

N. C., Salisbury.—Will improve W. Liberty, W. Harrison, W. Horah and other streets; issue \$485,000 bonds; W. T. Rainey, City Clk.

N. C., Sanford.-Will sell \$200,000 bonds for street improvements. Address The Mayor.

N. C., Smithfield.—Johnston County will sell \$40,000 bonds for road construction; D. B. Oliver, Chrmn. County Commrs.

N. C., Wentworth.—Rockingham County will construct 5 mi. hard-surfaced road from boulevard through Spray and Draper. Address County Commrs.

Okla., Altus.—State Highway Dept., Oklahoma City, Okla., let contract to Anderson, Howland & McCoy, Perry, Okla., at \$46,338, for 1 mi. concrete road in Jackson County.

Okla., Cushing. — Will pave 20,000 sq. yds. streets: \$80,000 available; bids about May 1; Clarence A. Wood, Engr., Stillwater, Okla. (See Machinery Wanted—Paving.)

Okla., Duncan. — Will pave 100 blocks in Dists. 2 to 7; 130,000 sq. yds. asphaltic concrete; \$850,000; bids until Apr. 19; J. F. Ewell, City Mgr.; Benham & Mullergren, Consit. Engrs., Firestone Bldg., Kansas City, Mo. Lately noted. (See Machinery Wanted—Paving.)

Okla., Muskogee. — State Highway Dept., Oklahoma City, Okla., let contract to Healy Construction Co., Muskogee, at \$262,171, for 23 mi. gravel road in Muskogee County.

Okla., Stillwater.—Will pave 6000 sq. yds. street; \$20,000 available; Clarence A. Wood, Engr.

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Okla., Tulsa.—Will improve 21st, 3d, 4th and other streets; bids until Apr. 18; Mrs. Frank Seaman, City Auditor.

Okla., Wagoner.—State Highway Dept., Oklahoma City, will probably let contract to Froebe-Briscoe Construction Co., Muskogee, Okla., for 17 mi. hard-surface road in Wagoner County at \$206.194.20.

Okla., Wilson.—Let contract to J. T. Taylor and J. Max Stone for 8 mi. sidewalks; \$80,000 available: have under construction \$200,000 paving; G. V. Pardue, Mayor. (Lately noted.)

Okla., Yale.—Let contract to Fuller & Co., Tulsa. Okla., for 20,000 sq. yds. paving; \$120,-000 available; Clarence A. Wood, Engr., Stillwater, Okla.

S. C., Columbia.—Richland County let contract to Elliott & Sons, Spartanburg, S. C., at \$28,116.05 for 6½ mi. Columbia-Newberry Rd.; J. Roy Pennell, Engr., 1202½ Main St., Columbia. (Lately noted inviting bids.)

S. C., Dillon.—Dillon County will construct 19.767 mi. Marion-Dillon-Bennettsville Rd.; Sections A, B and C; Federal-aid Project 50; bids until Apr. 20. (See Machinery Wanted— Road Construction.)

S. C., Laurens.—Laurens County will complete connection between Owing Station and Fountain Inn; voted \$30,000 bonds. Address County Commrs. (Lately noted to vote.)

S. C., Newberry.—Newberry County will construct 13 to 20 ml. roads from Newberry to Chappells and Whitmire; sell \$400,000 bonds. Address County Comsn.

Tenn., Athens.—Will construct 22,365 sq. yds. paving in Dists, 1, 2, 3 and 4; bids until May 2; Fred Stephenson, City Recorder. (See Machinery Wanted-Paving.)

Tenn., Clarksville.—Let contract to Municipal Paving & Construction Co., Bristol, Va., and William Leftwich Co., Nashville, Tenn., at \$200,000 for 50,000 sq. yds. pavement, 8000 ft. concrete curb and gutter, etc.; S. R. Alexander, City Engr. (Lately noted inviting bids.)

Tenn., Cleveland.—Will construct 56,610 sq. yds. paving; 23,895 lin. ft. curbing; 6990 sq. yds. sidewalk; storm sewers; etc.; bids until May 5; L. L. Woollen, Chrmn. Commrs. Improvement Dists, 6 to 15. (See Machinery Wanted—Paving.)

Tenn., Jackson.—Madison County may improve gravel roads; plans issuing \$100,000 bonds. Address County Commrs.

Tenn., Jackson. — Department Highways, State of Tennessee, Nashville, Tenn., let contract to E. D. Harvey & Co., Memphis, Tenn., at \$198,780.32 for 56% mi. State highway, Madison County; W. P. Moore, Ch. Engr., Nashville,

Tenn., Sparta. — Department Highways, State of Tennessee, Nashville, Tenn., let contract to A. F. Beardon, Birmingham, at \$354,240.52 for 13½ mi. State Highway No. 1, Wite County; W. P. Moore, Ch. Engr., Nashville. (Lately noted inviting bids.)

Tex., Abilene.—Will improve streets; \$150,000 available. Address The Mayor.

Tex., Brady.—McCullough County will construct 1.5 ml. Mason road, State Highway No. 9; gravel surfaced; bids until Apr. 27; Evans J. Adkins, County Judge. Lately noted. (See Machinery Wanted—Road Construction.)

Tex., Brenham.—Washington County will construct 33 mi. Federal-aid Project 236; \$1,-500,000 available; bids about May 15; G. A. Bracher, Engr. (See Machinery Wanted— Road Construction.)

Tex., Crowell.—Foard County will construct roads; vote May 7 on \$100,000 bonds; G. L. Burk, County Judge; L. Noland, County Engr.

Tex., Dallas.-Dallas County will construct

18.2 mi. Garland road; \$881,000 available; bids until May 16; Chas. E. Gross, County Auditor.

Tex., Dallas.—Let contract to Texas Bitulithic Co., at \$16,325.76 for paving Boll St.; Hal Moseley, Commr. Streets.

Tex., Fort Worth.—Let contract to Texas Bitulithic Co., Dallas, Tex., for paying Shaw St., and Worth Construction Co. for paying E. Bluff St.; D. L. Lewis, City Engr.

Tex., Greenville.—Hunt County will improve 8.71 mi. Greenville-Sulphur Springs road; State Highway No. 11; bids until Apr. 27; John L. English, County Auditor. (See Machinery Wanted—Road Construction.)

Tex., Haskell.—Will pave public square, extend watermains, etc.; vote on \$50,000 bonds. Address The Mayor.

Tex., Junction.—Kimble County applied for \$135,000 aid to complete 31.8 mi. State Highway No. 27; \$270,111; W. H. Baker, County Judge, Junction; W. E. Simpson, County Engr., Hicks Bldg., San Antonio, Tex.

Tex., Laredo.—Webb County will construct 35.4 mi. State Highway No. 2; surface with gravel; bids until Apr. 30; A. Winslow, county Judge. (See Machinery Wanted—Road Construction.)

Tex., Liberty.—Liberty County will construct roads; vote Apr. 23 on \$300,000 bonds; S. H. Crin, County Judge.

Tex., Mason.—Mason County will construct 27 ml. roads in Dist. 1 and 2; voted \$46,000 bonds; John T. Banks, County Judge. (Lately noted to vote.)

Tex., McKinney.—Let contract to Southern Construction Co., Dallas, Tex., for \$150,000 street improvements. Address The Mayor.

Tex., Waxahachie.—Ellis County will grade, drain and gravel surface 8½ mi. Ennis-Waxahachie road; bids until Apr. 22; G. G. Edwards, Engr., Ennis, Tex. (See Machinery Wanted—Road Construction.)

Tex., Waxahachie.—Will construct 23,990 sq. yds. pavement; bitulithic, rock asphalt, asphaltic concrete or vertical fiber brick; 15,875 lin. ft. combined curb and gutter; will invite bids; H. R. F. Helland, City Engr. (See Machinery Wanted—Paving.)

Tex., Wichita Falls.—Wichita County, 17.5 ml. 18-ft. concrete paved road on State Highway No. 5; \$722,438; J. P. Jones, County Judge; J. M. Isbell, County Engr.

Tex., Wichita Falls. — Wichita County will sell \$1,450,000 bonds for road construction; W. W. Murphy, County Auditor.

Va., Falmouth.—Let contract for 2114 ft. curbing and 400 ft. concrete sidewalk. Address The Mayor.

Va., Jonesville.—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., will construct 5 ml. water-bound macadam road on State Road No. 10, Lee County; Virginia Project No. 60; bids until May 3; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted—Road Construction.)

Va., Leesburg.—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., will construct 7.48 mi, bituminous macadam road on State Road No. 6, Loudoun County; Virginia Project S-64; bids until May 3; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted—Road Construction.)

Va., Newport News.—Will construct 3400 lin. ft. concrete curb and gutter on 26th St.; 1300 lin. ft. concrete curb and gutter on 35th St.; 1597 sq. yds. concrete on 35th St.; 1527 sq. yds. concrete on 42d St.; 1527 sq. yds. bituminous macadam on 34th St.; 1527 sq. yds. bituminous macadam on 27th St.; bids until May 2; J. L. Ficklen, City Clk. (See Machinery Wanted—Paving.)

Va., Palmyra.-Virginia State Highway Com. Mayor Bass. (Lately noted to vote.)

mission, 116 S. Third St., Richmond, Va., will construct 3.57 mi, soil road and 1.05 mi, bituminous macadam road on State Road No. 2, Fluvanna County; Virginia Project No. 89; bids until May 3; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted-Road Construction.)

Va., Richmond.—Will pave streets with sheet asphalt, asphaltic concrete, bitulithic, willite process, vitrified brick, durax block and granite spalls; \$250,000; bids until Apr. 26; Allen J. Saville, Director Public Works. (See Machinery Wanted—Paving.)

Va., Stuart.—Will improve streets; vote Apr. 19 on \$20,000 bonds; F. P. Burton, Mayor.

Va., Williamsburg.—Virginia State Highway Cosmn., 116 S. Thirá St., Richmond, Va., will construct 3.17 ml. concrete and bituminous concrete road on State Road No. 9; Virginia Projects S-93, 117-A and 117-B; bids until May 3; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted — Road Construction.)

Vn., Wytheville. — Yirginia State Highway Comsn., 116 S. Third St., Richmond, Va., will construct 9.04 ml, water-bound macadam road on State Road No. 10, Wythe County; Virginia Project No. 199; bids until May 3; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted—Road Construction.)

W. Va., Clarksburg.—Harrison County will grade and place drainage structures on 6.5 ml. roads, Sections A to D; bids until May 12; Clair N. Parrish, Clk. County Court. (See Machinery Wanted—Road Construction.)

W. Va., Charleston.—Will pave Virginia St.; 5800 sq. yds.; bids until Apr. 16; Ernest Bruce, City Engr. (See Machinery Wanted—Paving.)

W. Va., Fayetteville.—Fayette County will pave 7 mi. country road from Beckwith to Kanawha Falls; bituminous macadam; bids until May 2; J. K. McGrath, Road Eng. (See Machinery Wanted-Road Paving.)

W. Va., Huntington.—Let paving contract as follows: Amos Trainer, at \$4415. Six-and-a-half alley; Harrison & Dean. at \$7444. First St.; 326,153, Jackson Ave.; Geo. Henkle, at \$9346. Eight-and-a-half alley; Lucien Bias, at \$5801, 30th St.; \$10,263, 4th Ave.; Gershaw & McGinnis, at \$26,707, Caldwell St.; Mat. Miser, Commr. Streets and Sewers. (Lately noted inviting bids.)

### Sewer Construction.

Fla., Jacksonville.—Will construct 380 ft. 21 to 24-in. terra-cotta pipe storm sewer and standard storm sewer manhole in Franklin St. from 11th to 12th Sts.; bids until Apr. 29; John S. Bond, Chrmn. City Comsn. (See Machinery Wanted—Sewers.)

Ga., Vidalia.—Will vote May 10 on \$60,000 sanitary sewer bonds; install septic tanks; J. B. McCrary Engineering Corp., Atlanta, Ga. Address The Mayor. (Lately noted.)

Ky., Prestonsburg.—Will construct sewers and pave streets; bids until Apr. 15; W. C. Goble, City Cik. Lately noted bids until Mch. 25. (See Machinery Wanted—Sewers.)

S. C., Bennettsville.—Voted \$50,000 sewer and water extension bonds; T. C. Crosland, Mayor.

Tenn., Cleveland.—Will construct 7991 lin. ft. 12 to 36-in. storm sewers, 58 curb inlets and 11 manholes; bids until May 5; L. L. Woollen, Chrmn. Commrs. of Improvement Dists. Nos. 5 to 16; S. D. Newton, Engr. (See Machinery Wanted—Sewers.)

Tex., Rising Star. — Will vote on \$100,000 sewer and water systems bonds. Address The Mayor.

Tex., Pittsburgh.—Voted \$10,000 sewer bonds; Mayor Bass. (Lately noted to vote.) Va., Abingdon.—Let contract to R. L. Blevins, Abingdon, Va., or Bristol, Tenn., to install 42,000 ft. sewer system; cost \$75,000, Address The Mayor. (Lately noted.)

Va., Roanoke.—Will construct drains and sewers; \$50 lin. ft. concrete arch, or box drain; 1550 lin. ft. 42 and 45-in. brick, concrete or segment block sewer; 1,700 lin. ft. 24 and 36-in. concrete or terra cotta pipe; 27,200 lin. ft. 6 to 12-in. terra cotta pipe; bids until May 14; W. P. Hunter, City Mgr. (See Machinery Wanted—Sewers and Drains.)

W. Va., Huntington.—Let contract to Amos Trainer, to construct sewer in 9½ alley from 2½ St. to Hall St., cost \$1215; and sewer in Marshall Ave. from Caldwell to Lynn, cost \$400. Address The Mayor.

### Telephone Systems.

Ky., Chambers.—Caney Creek Telephone Co., incptd. by J. D. Rice, John Glover, H. C. Emrich.

Mo., Sarcoxie.—Sarcoxie Telephone Exchange purchased by J. W. McDonald, Ticonderoga, N. Y.; will erect building.

Tex., Houston. — Southwestern Bell Telephone Co., P. K. Baker, Asst. Gen. Mgr., St. Louis, Mo., will expend \$890,200 for next 2 years, including improvements to Wayside Exchange, additions to Preston-Hadley and Preston-Taylor trunk lines, also additional underground and aerial cables, etc.

Va., Roanoke.—Postal Telegraph Co. contemplates installing long-distance telephone.

### Textile Mills.

Ga., Augusta — Cotton Goods. — Riverside Mills, Geo, R. Stearns, Prest., increased authorized capital to \$1,800,000.

S. C., Greenville—Cotton Goods.—Judson Mills, B. E. Geer, Prest.-Treas., let contract to Gallivan Building Co, to construct dyenouse; brick with daylight sash; monitor roof supported by steel beams; cost \$10,000; install \$10,000 machinery; J. E. Sirrine & Co., Engrs. (Lately noted.)

Va., Stuart.—Stuart Textile Corp., capital \$150,000, incptd. with J. C. Shockley, Prest.; II. L. Hooker, Secy.-Treas.

### Water-Works.

Ala., Dothan.—Will issue bonds to construct water-works; R. W. Lisenby, City Clk.

Ark., Fort Smith.—Let contracts to construct boiler-house, costing \$7000, and filter-house, costing \$1700; let contract to Beeson Machinery Co., Kansas City, Mo., to install 2 pumping units, with 24-hour capacity of \$.000,000 gals., costing \$38,727; let contract to Merkle Machinery Co., Kansas City, Mo., for boiler feed pump, cost \$875; purchased feed water heater, \$762; let contract to General Concrete Construction Co., Chicago, Ill., to construct chimney over boiler-rooms, cost \$4690; Arch Monro, Mayor; W. Kiersted, Engr., 701 Mutual Bldg., Kansas City, Mo. (Previously noted improve water-works.)

Fla., Sebring.—Voted \$250,000 bonds for water-works, electric light and street improvements. Address The Mayor.

Miss., Belonzi.—Will vote in May on \$25,000 water and light-plant improvement bonds. Address The Mayor.

Mo., Hayti.—Will vote on \$30,000,000 waterworks bonds; J. H. Wilks, Mayor.

Mo., St. Louis.—Reported to purchase 53-acre site in St. Louis County; plans eventually installing reservoir for water piped from Missouri River; contemplates constructing 2 basins, 1042x437x30 ft. deep, with 150,000,000 gals daily capacity.

N. C., Ahoskie.—Will issue \$40,000 water and electric light bonds. Address The Mayor.

N. C., Chadbourn.-Voted water-works and street paving bonds. Address The Mayor.

Okla., Depew.-Voted Apr. 7 on \$12,000 waterworks bonds, Address The Mayor,

Okla., Duncan.—Will vote on \$600,000 electriclight plant and water-works bonds; install \$00 K. W. electric-light plant and electric distributing and street-lighting system; Robt. Frensley, City Clk.; J. F. Ewell, City Mgr.; Benham & Mullergren, Consit. Engr., Firestone Bldg.. Kansas City. Mo.

Okla., Ponca City. — Drill additional well; increase water supply from 2000 to 3006 gals. per min. Address City Commrs.

Okla., Sentinel.-Will vote Apr. 15 on \$14,500 water-works bonds. Address The Mayor.

S. C., Bennettsville.—Voted \$50,000 water and sewer extension bonds; T. C. Crosland, Mayor. S. C., Chesterfield.—Issued \$75,000 waterworks bonds; Ryan Engineering Co., Engr., Columbia, S. C. Address The Mayor.

S. C., Denmark.—Will construct 100,000-gal. capacity concrete reservoir; bids until June 1; Ryan Engineering Co., Engr., Columbia, S. C. Address Board of Public Works. (See Machinery Wanted—Water-works.)

Tex., Abilene.—Approved \$450,000 bond issue to construct reservoir and pipe line. Address The Mayor,

Tex., Bronte.—Voted \$20,000 water-works improvement and extension bonds. Address The Mayor. (Lately noted to vote.)

Tex.. Quanal.—Will vote Apr. 25 on \$100,-066 water-works extension bonds; construct 5 mi. water line; 1,000,000-gal. capacity reservoir; bids opened in May or June; install pumping plant equipment. Address City Secy. (Lately noted.)

Tex., Dallas.—Voted \$450.000 bonds to erect filtration plant at White Rock reservoir; David Morey, Jr., Sanitary Engr.; Geo. D. Fairtrace, City Engr.; F. W. Wozencraft, Mayor; all Dallas; Hill & Ferguson, Consit. Engrs., New York. (Lately noted to vote.)

Tex., Polytechnic. — Will construct 6-in. emergency water main between Polytechnic and Fort Worth; W. F. Hamilton, Mayor.

Tex., Haskell.—Will vote on \$50,000 bonds to extend water mains, install filtering plant and pave public square. Addresss The Mayor.

Tex., Rising Star. — Will vote on \$100,000 water and sewer systems bonds. Address The Mayor.

Tex., Pittsburgh.—Voted \$6000 water-works bonds; Mayor Bass, (Lately noted to vote.)

Tex., Terrell. — Let contract to Kau'man Filtering Plant Co. to construct filtration plant; cost \$36,000. Address The Mayor.

Va., Winchester.—Will vote May 7 on \$300,000 water bonds; enlarge water supply; construct plant to soften water. Address The Mayor,

### Woodworking Plants.

Ala., Birmingham — Boxes, etc. — Southern Woodworking Co., capital \$10,000, incptd. with Thos. C. Dobbs. Prest.; I. A. Fisher, V.-P. and Mgr.; C. C. Fisher, Secy.-Treas.; will erect new building; construct by owners; mfre. boxes, cedar chests, kitchen tables, porch swings and interior trimmings.

Fla., St. Augustine—Furniture.—St. Augustine Furniture Co., capital \$10,000, incptd, with B. O. Berry, Prest.; J. O. Jones, V. P. and Gen. Mgr.

Fla., St. Petersburg — Furniture. — Biltwell Furniture Co., T. H. Kards, Prest.-Mgr., has under construction 160x50-ft. building of hollow-tile construction, costing \$10,000; mehy. purchased; mfre. dining-room and bedroom furniture. (Lately noted to erect.)

Ky., Barboursville — Shuttle Blocks. — Knox Hardwood & Mfg. Co. organized with W. R. Lay, Prest.-Treas.; Thos. Hubbard, V.-P.-Mgr.; J. M. Cole, Secy.; will erect 30x60-ft. mill-construction building; install shuttle block and handle mchy. (See Machinery Wanted—Woodworking Machinery; Shuttle Blocks.)

Ky., Hickman-Staves.-Mill Shoals Cooperage Co., O. T. Steudle, Prest., St. Louis, Mo., plans establishing branch plant.

Ky., Livermore—Chairs.—Livermore Chair Co., K. J. Meyer, increased capital from \$20,000 to \$75,000.

Ky., Livermore—Chairs.—Green River Chair Co., K. J. Meyer, increased capital from \$100,-000 to \$150,000.

Ky., Praise-Tables.-Elkhorn Table & Mfg. Co., capital \$10,000, incptd. by G. H. Pendleton, J. D. Johnson, S. E. Loopey, all Jenkins, Ky.

N. C., Sanford—Boxes.—Makepeace Box & Lumber Co., capital \$50,000, incptd. by W. R. and J. F. Makepeace, D. D. Riddle.

Okla., Tulsa—Sash and Doors.—Tulsa Sash & Door Co., capital \$190,000, incptd. by E. W. Jacobs, James M. Thompson, W. M. Halsey.

S. C., Charleston—Wagons.—Condon Baking Co., 219 St. Philip St., have organized a \$10,000 corporation to mfre. and repair wagons; have purchased established plant. (See Machinery Wanted—Iron Castings.)

### Fire Damage.

Ala., Alabama City.—John Johns' meat market; P. C. Smith's photograph studio; Ingram Grocery Store; loss \$19,000.

Ala., Carrollton.-J. H. Holmes Lumber Co.'s saw and planer mill.

Ala., Centre.—E. P. Mosly's store; Dr. J. W. Gramling's office and operating-room.

Ala., Cottondale.—Rufe Hubbard's residence.

Ala., Georgiana.—J. L. Pinkerton's residence.

Ala., Montgomery.—W. J. Toole's residence at 1024 S. Hull St.; loss, \$40,000.

Ala., Montgomery.—C. H. Roquemore's residence, 708 Felder Ave.

Ala., Opelika.—J. L. Satterwhite's corn and feed mill, S. 9th St. and Avenue B; loss \$15,000.

Ala., Piedmont.—Dixie House. Address The Proprietor.

Ala., Roanoke.—W. H. Knight's residence; loss \$15,000.

Ala., Tallassee.—Davidson Bros.', McKinzie Bros.' and Jim Jones' stores at Carrville.

Ala., Tuscaloosa.—Jim Gallagher's Estate's apartment-house at 9th St. and 26th Ave.

Ark., Little Rock.—John Ball and W. G. Hall's building at 7th and Spring Sts., occupied by Reimen & Wolfort's stables; loss \$25.000.

Ark., Little Rock.—Reinman & Wolfort's garage; loss \$25,000.

Ark., Little Rock. — Warehouse No. 1 of Little Rock Pickery & Refining Co.; Hayley M. Bennett, Mgr.

Ark., Little Rock.—Little Rock Pickery & Reginning Co.'s plant, 10th and Beech Sts.; loss, including 65 bales reginned cotton, \$15.500.

Ark., North Little Rock. — Buckeye Oil Mill's hullhouse,

Fla., Pensacola.-Burke's bakery, 9th Ave. and La Rua St.

Fla., Fort St. Joe.—Gulf Fish Co.'s wharf, building, etc.; loss \$10,000.

Ga., Atlanta.—Georgia Avenue Presbyterian Church, Georgia Ave. and Grant St., Rev. Robert Ivey, Pastor; loss \$20,000.

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Ga., Covington,-Covington Cotton Oil Mills Co.'s plant; loss \$125,000.

Ga., Dublin.-Y. A. Parnell's store; Dublin Mule Co.'s stable.

Ga., Hartwell.-Leon Morris' residence.

Ga., Macon.-Buckeye Cotton Oil Co.'s plant, including warehouse; loss \$135,000.

Ga., Montezuma.-Montezuma High School;

Ga., Talbotton.—J. R. Callier's store; Bank of Talbotton; T. A. Bordwell's, J. H. Bryant's and C. M. Calhoun's stores.

Ga., Valdosta.-Empire Oil Co.'s warehouse.

Ky., Clinton.-Paul Harper's residence.

Ky., Louisville.-Lee Tire & Rubber Co.'s

Ky., Owensboro.-W. S. Hazel's residence at 1833 S. Davies St.; occupied by C. W. Kim-

Ouachita Amusement Co.; loss \$10,000.

Mo., Carthage.-Steadley & Co.'s stone quarry mills: loss \$100,000.

Co.'s drykiln No. 1: loss \$10,000.

Mo., Clarence.-Missouri Holiness College: loss \$15,000.

N. C., Fountain,-A. G. Gardner Co.'s store. garage,

N. C., Raleigh. - Carolina Country Club;

N. C., Rocky Mount. - T. S. McDearman Tobacco Co.'s factory and steam-drying plant; loss \$100,000.

N. C., Marietta.-Leon Henley's store; R. C. Oliver's tobacco barn.

N. C., Southern Pines.—R. E. Wiley's building, loss \$15,000; Harry Lewis' building, \$20,000; Perkins Hotel, \$30,000; J. F. Reynolds, \$7500; Home Furniture Co.'s store, \$5000.

N. C., Wallace,-Camp Mfg. Co.'s drykilns and other property; loss \$75,000.

N. C., Wilson.-Wilson Tobacco Co.'s plant; loss \$100,000; building owned by Dibrell Bros., Danville, Va.

N. C., Yadkinville.-Mrs. Rachael Hobson's residence.

S. C., Chester .- Purity School.

S. C., Cheraw.-T. L. Ingram's sales stable.

Tenn., Buffalo Valley.-Buffalo Valley Loose Leaf Tobacco Warehouse, owned by Horace Jared, J. C. McKinley and W. G. Travis; loss \$25,000.

Tex., Clarendon.-Couch Restaurant; Cash Grocery Store; Cycle Grocery Store.

Va., Danville.-Coates Dairy Co.'s plant; loss \$15,000.

Va., Norfolk.-Marine Supply Co., Inc., and Moon Engineering Co., Inc.'s, warehouses; loss \$75,000.

Va.. Richmond. - Capitol Motor Corp.'s building; loss \$25,000.

W. Va., Barboursville.-Barboursville Clay Mfg. Co.'s plant.

W. Va., Grafton.-W. P. Hendrickson's

Okla., Ardmore.-State National Bank will erect \$400,000 building.

Okla., El Reno. - El Reno Mill & Elevator Co., Karl Humphrey, Mgr., will erect office building.

Tenn., Knoxville.-Drs. M. M. and K. C. Copenhaver will erect 5-story office building at Cumberland Ave. and Walnut St.; 94-ft. front; white glazed brick; terra-cotta trim; reinforced concrete; elevator; Thos. S. Browne, Archt.; A. R. McMurry, low bidder at \$135,950. (Lately noted.)

Va., Galax.-First National Bank will erect building at Main and Grayson Sts.: Howard Miller, Archt., Roanoke. (Lately noted.)

### Churches.

Ala., Birmingham.-First Baptist Church will erect \$190,000 Sunday-school building: 3 stories. Address The Pastor.

Ark., Little Rock.-Winfield Memorial M. E Church South, Rev. W. B. Hogg, Pastor, will erect \$150,000 building at 16th and Louisiana Sts.; 70x70 ft.; equivalent of 41/2 stories; brick and reinforced concrete; slate roof; cork tile on concrete floors; steam heat; Thompson & Harding, Archts., 504 S. T. Bldg. (Lately noted.)

D. C., Washington.-All Souls' Unitarian Church, Dr. U. G. B. Pierce, Pastor, Geo. A. Ricker, Chrmn, Board of Trustees, will erect building.

Ga., Atlanta. - Georgia Avenue Presbyterian Church, Georgia Ave. and Grant St., Rev. Robt. Ivey, Pastor, plans to rebuild structure burned at loss of \$20,000.

Ga., Macon. — Cherokee Heights Baptist Church, Rev. Dr. H. W. Sledge, Pastor, will erect \$50,000 building.

Ky., Louisville.-Oakdale Baptist Church, Rev. R. I. Rayne, Pastor, 4017 S. 3rd St., will erect \$50,000 building on Oakdale Ave.; brick, stone trim; Joseph & Joseph, Archts., Atherton Bldg.

Ky., Louisville. - Baptist Tabernacle will erect \$20,000 building; Sunday-school rooms, social-rooms, etc. Address The Pastor.

La., Shreveport.-Methodist Church, Queensborough, plans to erect \$15,000 building; A. W. Chrmn.; M. Mayo, 2915 Hardy St., Calcote. Treas. Bldg. Comm.

Md., Baltimore.-Shaarei Tefiloh Congrewill erect \$200,000 synagogue at gation Auchentoroly Ter. and Holmes Ave.; stone, faced with Port Deposit granite; 70x18.5 ft.; 2 stories; central dome; auditorium seat 900; Stanislaus Russell, Archt., 11 E. Lexington St.; bids opened in about 30 days,

Mo., California.-Baptist Church will erect building. Address The Pastor.

Mo., St. Louis .- Sidney Street Presbyterian Church, Sidney St. and Minnesota Ave., Rev. Karl Fredk. Wettstone, Pastor. will erect \$100,000 building.

N. C., Charlotte. - Methodist Church, L. Lester Wolfe, Chrmn. Bldg. Comm., plans to erect \$75,000 to \$100,000 building at Dilworth.

N. C., Statesville.-Lutheran Church will erect \$40,000 building at West Front and Mulberry Sts.; brick; seat 400. Address The Pastor.

Okla., Ardmore.-Broadway Baptist Church will erect \$275,000 building. Address The Pastor.

Okla., Norman.—M. E. Church South will erect \$150,000 building; brick and stone; tile roof; wood floors; Hawk & Parr, Archts... Magnolia Bldg., Oklahoma City.

Tenn., Dyersburg.-Methodist Church, H. R. Meriwether, Chrmn. Bldg. Comm., is receiving bids on \$100,000 building; 60x120 ft.; Spanish architecture. (Lately noted.)

loss \$25,000.

less \$30,000. Address Board of Education.

Ky., Frankfort.-Wm, H. Hoge's building, Chas. Fincel's store, H. G. Mattern's residence and photograph gallery.

Ky., Mannington. - Memphis Coal Co.'s blacksmith shop and warehouse; loss \$30,000.

plant; loss \$60,000.

berlain; loss, \$6000.

La., Leesville.-John Walker's residence.

La., West Monroe.-Royal Theater owned by

Miss., Laurel. - Gilchrist-Fordney Lumber

Mo., St. Louis. — Gene Rodemich Coal & Hauling Co.'s garage; loss \$14,000; 2822 Easton

# BUILDING NEWS

## BUILDINGS PROPOSED Apartment-Houses,

Fla., Jacksonville.-A. B. O'Hara and Mrs. Julia G. O'Neal will erect 12-suite apartmenthouse on Oak St., between Stockton and Barrs Sts., Riverside.

Fla., St. Petersburg.-W. F. Lewis, P. O. Box 2078, will erect \$50,000 apartment-house at 5th Ave. and 5th St. N.; frame and stucco; 25 suites; yellow pine floors; steam heat, \$3500; city electric lights; Richie & Jonesburg, Archts.; bids opened about Apr. 16. (Lately noted.)

Mo., St. Louis .- H. A. Barnett, Century Bldg., will erect \$15,000 apartment-house at Lafayette and Tower Grove; 2 stories and basement; 34x53 ft.; brick; O. J. Bopp, Archt., Odd Fellows' Bldg.; day work.

Tenn., Chattanooga,-Col. Creed F. Bates and daughters organized Bates Improvement Co.; will erect \$100,000 apartment-house at E. 8th and B Sts.; 3 stories; 36 suites; brick; semi-fireproof; hardwood floors; interior tile.

Va., Richmond.-L. M. Cheatham will erect \$100,000 apartment-house at Main and Adams Sts.; 3 stories; 66x125 ft.

W. Va., Beckley.—P. L. Blankenship will erect apartment and business building on Oakwood St.

W. Va., Fairmont.-Frank C. McCray, Box 427, will erect \$85,000 apartment house at Locust Ave. and Emerson St.; 3 stories; 18 suites: brick: stone and terra-cotta trim: composition roof; pine and hardwood floors; steam heat; electric lights; hollow fireproof tile ;metal ceilings; ornamental terra cotta; Barnett, Archts., Century Bldg.

interior tile; metal doors; wire glass; mail chutes; ventilators; steel sash and trim; bids opened about May 1.

W. Va., Huntington.-Max Biederman will erect 2-story garage and apartment building on 4th Ave., between 2d and 3d Sts.; cost \$26,000; brick.

### Bank and Office.

D. C., Washington.-Northeast Savings Bank will erect \$60,000 building at H and 8th Sts.

Fla., River Junction.—E. II. Boykins & Co. and Gadsden County State Bank will erect store and bank building. (See Stores.)

Ky., Falmouth.-First Natl. Bank will remodel Assembly Bldg.; install vault and fixtures.

Ky., Hazard.-Christ Davis Sampson will erect 4-story store and office building; brick; fire roof; 2 stores; 46 offices.

Ky., St. Matthews.-St. Matthews Bank, Mr. Dick, Cashier, will expend \$20,000 to remodel store building for bank; brick; Brinton B. Davis, Archt., Norton Bldg., Louisville.

La., New Orleans.—Federal Reserve Bank will expend \$250,000 to remodel and erect additional story to building at Carondelet and Common Sts.; install vaults; Joseph A. Mc-Cord. Atlanta, Ga., Chrmn. of Board.

Mo., St. Louis. - Savings Trust Co., H. Carter, Prest., 4935 Delmar Ave., will erect \$100,000 building; 2 stories; 60x100 ft.; brick and stone; fireproof; Barnett, Haynes &

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Tex., Dallas.—Tyler Street Methodist Church, Oak Cliff, Dr. R. F. Bryant, Pastor, will erect \$150,000 building at Polk and 10th Sts., Oak Cliff; 4 stories; 165x87 ft.; auditorium, 84x84 ft, (Previously noted.)

Tex., Lubbock.—First Baptist Church, Rev. W. A. Bowen, Pastor, will erect \$50,000 building; 76x107 ft.; brick; pine and concrete floors; steam heat \$3000; lighting plant \$1000; metal cellings; plaster board; rolling partitions; Walter E. Taylor, Archt. (Lately noted.)

Va., Gate City.—Southern Methodist Church will erect \$30,000 building. Address The Pastor.

Va., Norfolk.—Mikro Kodosh Congregation will erect synagogue at Liberty and Brunswick Sts., Berkley; brick and stone; 2 stories; 39x78 ft.; B. B. Spigel, Archt., 112 E. Main St.; Fane Construction Co., low bidder at \$25,000. (Lately noted.)

W. Va., Fairmont. — Methodist Episcopal Church South will erect \$100,000 church and Sunday-school building at Fairmont Ave. and 3d St.; 76x112 ft.; brick, terra-cotta trim; Ionic architecture; Sunday-school building. 3 stories; C. H. Snider, Archt. (Previously noted.)

W. Va., Huntington. — Highlawn Baptist Church, Rev. Arthur Hank, Pastor, plans to erect \$80,000 temple at Collis Ave. and 28th St.

W. Va., Fairmont.—Methodist Episcopal Church South will erect\*\$100,000 church and Sunday-school building at Fairmont Ave. and 3rd St.; previously noted; 70x115 ft.; brick; tile roof; Ionic architecture; Sunday-school building, 3 stories; C. H. Snider, Archt., Professional Bldg. (See Machnery Wanted— Building Material; Brick; Terra Cotta; Seating; Pipe Organ; Art Glass; Furniture.)

W. Va., Welch.—First Presbyterian Church Bidg. Comm. will receive bids until Apr. 20 to erect stone church building; plans and specifications from Warren Wilson, Welch, or from Alex B. Mahood, Archt.. Bluefield. (Previously noted.)

### City and County.

Mo., Lees Summit—Home.—Jackson County, Peters Kelley, Clk., will erect \$100,000 industrial home for colored boys, 2 mi. from Lees Summit; 2 stories and basement; 107x44 ft.; wing each side, 60x34 ft.; concrete, brick and stone; tile roof; wood, cement and tile floors; low pressure steam heat, \$12,000; interior tile; ventilators; White & Dean, Archts., 301 Bellefontaine St., Kansas City, will receive bids until May 1. (Lately noted.)

N. C., Mount Airy—Home.—Board of Commissioners, Education and Public Welfare plan to erect home in Surry County for juvenile delinquents; A. W. George, O. E. Snow and J. H. Carter, Comm.

Okla., Bartlesville—Convention Hall.—City, A. F. McCaleb, Mayor, voted \$300,000 bonds to erect convention hall and community center; Ralph Cox, City Commr. of Finance. (Lately noted.)

Okla., Poteau — Fair Buildings. — City Park Comsn. will receive bids until Apr. 18 to erect 8 buildings at Le Flore County free fair grounds.

Tenn., Chattanooga—Auditorium.—Memorial Auditorium Comsn., Z. W. Wheland, Chrmn., will erect \$600,000 auditorium; 135x283 ft.; fireproof; R. H. Hunt, Archt.; construction will probably begin about first of next year.

Tenn., Memphis—Auditorium.—Auditorium. Market House Comsn., R. R. Ellis, Chrmn., will receive bids until May 2 for excavations, foundations, retaining walls, basement walls, sidewalks, curbs and gutters and main-floor construction in connection with auditoriummarket-house building at Main St., Poplar Ave., Front St. and Exchange Ave.; portion, 5 stories and basement; other portions, 3 stories and basement; brick and marble; Bedford stone columns and trim; terra-cotta cornice and wall work; tile roof; plans, specifications and information from office of Chas. O. Pfeil, Archt., and Geo. Awsumb, Asso. Archt., 1403 Union & Planters Bank Bidg. (Previously noted.)

Tex., Quanah.—Will vote Apr. 26 on bonds, including \$40,000 for city hall and fire station combined; brick. Address The Mayor, (Lately noted.)

Va., Portsmouth.—Will alter and erect additions to market building at Chestnut and King Sts.; theater auditorium to seat 800; Wickham C. Taylor, Archt., Citizens Bank Bldg., Norfolk; E. C. Ford, lowest bidder at \$29,200. (Lately noted.)

Va., Warrenton — Clerk's Office. — Fauquier County, T. E. Bartenstein, Clk., plans to erect clerk's office building; preliminary plans and specifications wanted.

### Courthouses.

La., Baton Rouge.—Building Comm., Jos. Gebelin, Chrmn., Bank of Baton Rouge, will receive bids until May 4 to erect courthouse and jail building; plans and specifications at office of Edw. F. Neild, Archt., Shreveport. (Previously noted.)

Miss., Jackson.—Hinds County will erect \$390,000 courthouse and jail; Kramer & Lindsley, Archts., 50-53 Kress Bldg.

### Dwellings.

Ala., Montgomery.—S. K. Fleming, R. E. Seibels, James Miller and others organized S. K. Fleming Homebuilder, Inc., with capital stock of \$50,000; will erect number of dwellings.

Ala., Samson.—Baptist Church will erect parsonage at Main and Canal Sts. Address The Pastor.

Ala., Troy.—Frank Lockwood, Archt., Montgomery, will receive bids until May 4 to erect dwelling: 46x42 ft.; brick and tile; composition roof; linoleum, tile and concrete floors; steam heat; electric lights; hollow fireproof tile; interior tile; metal doors; steel sash and trim. (See Machinery Wanted—Heating Plant.)

D. C., Washington.—C. M. Wallingford and J. A. Connor will erect dwellings at 1412-20 Oak St.; cost \$30,000.

D. C., Washington.—D. J. Dunigan will erect dwellings at 1714-20 R St. N. W.; cost \$70,000. D. C., Washington.—Dr. H. S. Martin will erect \$20,000 residence at 1740 New Jersey Ave.

D. C., Washington.—H. M. Bedell will expend \$20,737 to repair dwellings at 610 and 608 E. St.

D. C., Washington.—P. W. Price will erect \$10,000 residence at 1224 Maryland Ave. N. E. D. C., Washington.—W. C. and A. N. Miller,

D. C., Washington.—W. C. and A. N. Miller, Union Trust Bldg., will erect \$15,000 residence at 3521 Woodley Rd.

Fla., Daytona.—Mrs. Cecilia M. Doheny, Toronto and Cobourg, Canada, purchased property at Ocean Blvd. and Palmetto Ave., and plans to erect 2-story residence.

Fla., Jacksonville.—Wm. M. McCrory will erect \$20,000 residence and garage at McDuff Ave. and Oak St., Riverside; brick veneer; stone porch and columns; 15 rooms; 118x62 ft.; Dutch colonial type; Mark & Sheftall, Archts.

Fla., Jacksonville,—Telfair Stockton Co., D. W. Shelly, member, will erect number of dwellings on Herschell St., Avondale; cost \$50,000

Fla., Orlando.-L. M. Autrey, P. O. Box 959,

will erect \$40,000 residence lately noted; 60x90 ft.; brick; tile roof; concrete, hardwood and tile floors; ornamental terra-cotta; interior tile; Murry S. King, Archt. (See Machinery Wanted—Plumbing; Millwork; Electrical Supplies.)

Fla., Seabreeze,—B. B. Baggett and J. I. Wetherby purchased Block 30 on Grandview Blvd., and will erect number of bungalows; cost, \$8000 to \$10,000 each.

Fla., Scabreeze.—C. C. Heisen, Ardmore Milling & Supply Co., Chicago, will erect 25 dwellings; \$4500 to \$12,500 each.

Fla., Tampa.—W. S. Wills will erect 3 dwellings; frame and brick; also erect 2-story brick store; total cost, \$17,250.

Ga., Adrian.—Carl L. Gillis will erect \$8000 residence to replace structure lately noted burned; hollow tile, brick or frame; metallic roof; wood floors; electric lights; hollow fire-proof and interior tile. (See Machinery Wanted—Building Material; Brick; Tile.)

Ga., Atlanta.—Co-operative Development and Home Builders' Assn., Jos. A. Mahoney, Prest., 529-30 Candler Bildg., organized with capital stock of \$1,000,000; will erect number of dwellings in Woodlands Hills Park in connection with development.

Ky., Louisville.—Lillian B. Gould will erect \$13,000 residence at 2150 Barringer St.

Ky., Louisville. — Chas. Meriwether will erect \$12,000 residence at 10 Eastover Court, and \$8000 residence at 2108 Alta Ave.

La., New Orleans.—Dr. David Hyam will erect residence at Carrollton Ave. and Apple St.

La., Plaucheville.—Son Hyman Lumber Co., Memphis, Tenn., will erect 1290 dwellings, schools, etc., in connection with logging camp.

Md., Baltimore.—Merton Realty Co. will erect 21 two-story daylight dwellings on Norfolk Ave. between Oakfield and Kent Aves.; brick; 19 to have 7 rooms and bath and two 8 rooms and bath; hardwood floors; steam heat; gas and electric lights; Stanislaus Russell, Archt., 11 E. Lexington St.

Md., Baltimore. — Isaac C. Rosenthal, 3411 Holmes Ave., will erect 18 dwellings; ten, 21.4x47 ft.; eight, 18.11x47 ft., including porches; brick: slag roofs; hardwood floors; hot-air heat; electric lights; Stanislaus Russell, Archt., 11, E. Lexington St.; construction by owner.

Md., Baltimore.—John N. Biesecker, 17 E. Saratoga St., will erect 2½-story brick residence at Roland Ave. and Cold Spring Lane: cost about \$10,000; 45.9x34.6 ft.: slate roof; hot-water heat; John R. Forsythe, Archt., 4307 Penhurst Ave.; construction by owner.

Md., Baltimore.—Chas. F. Stein, 231 Courtland St., will erect 10 two-story dwellings on Spaulding Ave., near Denmore.

Mo., Kansas City.—Phil Hyde purchased lot at 801 W. 58th St., and plans to erect residence.

Mo., Kansas City. — A. J. Mehl will erect \$10,000 residence at Huntington Rd. and Brookside Ave.; 2 stories and basement; 51x31 ft.; Carthage stone and brick veneer; shingle roof; C. E. Shepard, Archt., 510 Reliance Bldg.

Mo., St. Louis.—E. H. Meyer, Clk., Postoffice. will erect \$10,000 residence at Magnolia and Thurman Aves.: 2 stories: 49x39 ft.; brick; O. J. Bopp, Archt., Odd Fellows' Bldg.

Mo., St. Louis.—Herman Alles, 4411 Fair Ave., will erect 3 dwellings at Fair and Rosalie Aves.; cost \$8000 each; 2 stories; 26x29 ft.; brick; Nolte & Nauman, Archts., Fullerton Bldg.; day work.

Mo., St. Louis.-Raymond E. Scoville, 5849

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Etzel Ave., will erect \$15,000 residence; 2 stories; 32x39 ft.; brick; H. P. Hess, Archt., 4811 Cote Brilliant Ave.

Mo., 8t. Louis.—John Feudler, 5050 Grand Ave., will erect 15 dwellings; cost \$100,000; plans and construction by owner.

Mo., University City.—Pryor Stephenson Realty Co., 7th and Chestnut Sts., St. Louis, will erect 12 dwellings; cost \$8000 each; 1½ stories; 30x36 ft.; brick; E. B. Hill, Archt., 4754 Hammet Pl., St. Louis; construction by owner.

N. C., Reidsville. — A. P. Montgomery will erect residence on Lawsonville Ave.

N. C., Reidsville.—Sheriff A. P. Sands will erect residence on Lindsey St.

N. C., Wilkesboro. — Genio Cardwell will erect residence at 6th and E Sts.

Tenn., Knoxville.—Dr. R. L. Bellamy will erect residence at Hill Ave. and Maple-hurst St.

Tex., Rockdale.—Standard Coal Co., Theo. Magott, Prest., San Antonio, will erect number of dwellings in connection with mining development.

Tex., San Antonio.—W. A. Baity will erect 3 dwellings; 5 and 6 rooms; cost \$13,000.

Tex., San Antonio.—Jay E. Adams will erect \$25,000 residence at College St. and Grammercy Place, Monte Vista.

Va., Danville.—W. Y. Noell purchased lot on W. Main St. and plans to erect residence.

Va., Danville.—M. Koplen will erect 6 residences; cost \$4000 each.

Va., Lynchburg. — Fairview Methodist Church will erect parsonage, Address The Pastor.

Va., Norfolk. — W. W. Colonna will erect \$30,000 residence on Oaklette farm, Washington Magisterial Dist.

Va., Richmond.—I. Coplan will erect 4 brick dwellings at 2317-23 Taylor St.; cost \$16,000.

Tenn., Knoxville.—Industrial Home Co., R. G. Wright, Prest., will erect 25 five-room dwellings in the Holston allotment.

Va., Norfolk.—Virginius Butts will erect \$10,000 brick residence; bids opened Apr. 19 at office of Philip B. Moser, Archt., Law Bldg.; plans and specifications at office of Builders' Exchange. Areade Bldg.

Va., Norfolk.—Wm. H. Ridgewell will erect \$15,000 residence; brick; bids opened Apr. 19 at office of Philip B. Moser, Archt., Law Bldg.; plans and specifications at office of Builders' Exchange, Arcade Bldg.

W. Va., Bluefield. Dr. C. M. Scott will erect \$40,000 residence; 55x35 ft.; rough texture brick; creo dipped shingle roof; concrete and oak floors; hot water heat; Martin J. Garry and Robert A. Sheffey, Archts.; T. J. Cruise, low hidder.

W. Va., Fairmont.—Joseph Toothman purchased lot on Highland Ave. and plans to erect residence.

W. Va., Morgantown.—Mr. McWarther will erect \$15,000 residence; 2 stories and basement; 25x30 ft.: frame; Sidney F. Heckert, Archt., Bessemer Bidg., Pittsburgh, Pa.

### Government and State.

La., Carville—Cottages, etc.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., will receive bids until May 3 to construct quarters for officer in charge and patients' cottages for National Home for Lepers; drawings and specifications from Supt. of Construction, U. S. Custom-house, New Orleans, or office of Supervising Archt., Washington.

Mo., Kansas City—Post Office.—Treasury stucco; J. Dept., Jas. A. Wetmore, Acting Suprv. Archt., 425 Oak St.

Washington, D. C. will remodel and extend postoffice and courthouse; W. P. Thurston Co., Richmond, Va., low bidder at \$126,000. (Lateby noted.)

MANUFACTURERS RECORD.

### Hospitals, Sanitariums, Etc.

Ala., Selma.—Ernest Lamar will receive bids until Apr. 25 to erect Baptist hospital; plans and specifications from office of Lockwood & Poundstone, Archts., Forsyth Bldg., Atlanta. (Previously noted.)

D. C., Washington.—Cuno H. Rudolph, Chas. W. Kutz and Jas. F. Oyster, Commrs., 509 District Bldg., will receive bids until Apr. 18 for excavations, foundations, substructures and pipe tunnels for Gallinger Munleipal Hospital on Reservation 13, Massachusetts Ave. S. E.; forms of proposal, specifications, plans and infromation from Ch. Clk. Engineer Dept., 427 District Bldg. (Previously noted.)

Mo., Springfield.—St. Louis-SanFrancisco R R. Co. will erect hospital; H. L. Worman, member of hospital board.

Mo., St. Louis.—Order of Mystic Shrine, Sam P. Cochrane. Dallas, Tex., Chrmn. General Hopital Comm., plans to crect \$1,000,000 National Shriners' Hospital for Crippled Children; Wm. B. Ittner, Board of Education Bidg., St. Louis, probable Archt. (Lately noted.)

Okla., Bartlesville. — Washington County Commrs., J. L. Lotz, Chrmn. Beard, will erect brick and concrete hospital: composition roof; terrazzo and composition floors; hollow fireproof tile; ornamental terra-cotta; steam heat; passenger elevator; bids until Apr. 23 at office of Neva M. Scott, County Cik.; plans and specifications at office of County Cik., and office of Walton Everman, Archt. (Lately noted.)

S. C., Columbia.—Thos. B. Pearce, Columbia; T. Frank Watkins, Anderson, and others, Comm. to renovate South Carolina Infirmary; cost \$35,000.

Tex., Ranger.—G. H. Thomas Washburn, 425 Oak St., Graham, prepared plans for 860,000 hospital: fireproof.

### Hotels.

Ala., Piedmont.—Dixie House will rebuild structure noted burned. Address The Proprietor.

Fla., Hallandale.—Florida East Coast Investment Co., Chas. S. Emerson, V.-P., 300-01 Hill Bidg., Miami, plans to erect 20-room hotel in connection with development of subdivision on Dixie Highway. (See Fla., Miami.)

Ark., Hoxie.—Boaz Hotel will erect 50-room addition to hotel; cost \$65,000.

Fla., Miami.—Florida East Coast Investment Co., Chas. S. Emerson, V.-P., 300-01 Hill Bldg., will erect hotel; 30x70 ft.; 3 stories; fireproof; cost \$15,000; Henry La Pointe, Archt., Flagler St. E.; also plans to erect 20-room hotel on Dixle Highway in Hallandale.

Fla., Tampa.—Temple Terraces, Inc., B. L. Hammer, Prest., will erect \$150,000 hotel; 260x 175 ft.; 40 rooms; lobby 2 stories; other part of building, 1 story; roof garden; dancing pavilion; construct 14 or 15 cottages of 3 or 4 rooms in connection; M. Leo Elliott, Archt.

Tenn., Johnson City.—Johnson City Hotel Co. will erect \$50,000 hotel; 135x180 ft.; tar and gravel roof; reinforced concrete floors; low-pressure steam heat; electric lights; ready for bids in 60 days; W. L. Stoddart, Archt., 9 E. 40th St., New York. (Lately noted.)

Tex., Graham.—A. M. Pancoart will erect \$75,000 hotel; 3 stories; 75x78 ft.; brick and stucce; J. H. Thos. Washburn Co., Archt., 425 Oak St.

Tex., Sweetwater.—J. McAllister Stephenson, Jr., Abilene, will erect brick and concrete annex to Hotel Wright; 50x120 ft.; stores on first floor.

W. Va., Beckley.-Dr. J. A. Campbell will erect 4-story hotel on Heber St.

### Miscellaneous.

Ala., Troy—Orphanage.—Alabama Baptist State Convention, Montgomery, will erect four 2-story cottages at Baptist Orphanage; hollow tile and brick veneer; asbestos shingle roof; interior tile; cement floors on tile covered with battleship linoleum; plaster board; steel sash and trim; steam heat; electric lights; cost \$75,000; bids opened May 4; general plan calls for 8 cottages, administration building, superintendent's home, infirmary, storage warehouse, building for heating plant; Frank Lockwood, Archt, Montgomery. Address W. A. Davis, Chrmn. Orphanage Comm., Anniston. (Lately noted.)

Fla., Miami — Amusement Pavilion. — W. H. Netherland, New York City and Louisville, contemplates erecting amusement pier at foot S. E. 1st St., to include auditorium to seat 9000, roller-skating rink, swimming pool, Turkish bath, theater to seat 1200, library, roof garden, billiard hall, gymnasium, clubrooms, 5 auto exhibits, booths for manufacturers, 50-ft. promenade; pier building 1000x 200 ft.; 3 stories; concrete, steel and cement; E. A. Nolan, Archt.

Fla., Miami—Clubhouse.—Illinois Club will erect clubhouse; 100x150 ft; fireproof; concrete, hollow fireproof and interior tile; ornamental terra-cotta; hardwood and concrete floors; steel sash and trim; ventilators; safes; mail chutes; electric lights; two passenger elevators; Gordon Mayer and M. E. Fidler submitted plans. Address Geo. A. Mawman, Secy.-Treas., 22 Havlin Bldg. Lately noted.)

Ga., Griffin—Orphanage.—Independent Order Odd Fellows, Col. Homer R. McClatchey, Chrmn. Bldg. Comm., Columbus, will erect Robert T. Daniel memorial at Odd Fellows' Home; cost \$50,000.

Mo., Kansas City — Clubhouse. — Progress Club, Julius Lyons, Prest., 33d and Harrison Sts., will erect \$100,000 clubhouse.

'Mo., Warrensburg—Dairy.—Missouri Dairy Co., Kansas City, will erect \$30,000 milkreceiving station.

N. C., Lake Junauska.—J. B. Ivey, Charlotte, will erect dormitory of 40 rooms, and cafeteria to accommodate 400 people; also erect electric laundry.

N. C., Raleigh—Clubhouse.—Carolina Country Club will rebuild clubhouse noted burned at loss of \$25,000.

N. C., Raleigh—Grandstand.—State Fair Assn., Mrs. Edith Vanderbilt, Prest., New York and Asheville, will erect grandstand; reinforced concrete; seating capacity 4000; cafes underneath; cost \$25,000 to \$39,000.

S. C., Cheraw-Stable.-T. L. Ingram will erect sale stable to replace noted burned structure.

Tenn., Memphis—Clubhouse.—Catholic Club will erect \$400,000 building; 97x149 ft.; concrete and steel skeleton; composition and tile roof; hollow fireproof and interior tile; concrete and hardwood floors; ornamental terra-cotta; wire glass; vault lights; ventilators; heating plant, \$20,000; 2 electric elevators; Regan & Weller and Henry J. Kramer, Asso. Archts., \$34 Bank of Commerce Bldg. (Lately noted to open bids Apr. 30.)

Tex., Dallas — Sheds. — Temple Lumber Co. will construct lumber sheds at 2601-9 St. George St.; cost \$10,000.

Tex., Lynchburg-Clubhouse.-Crystal Bay

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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Park, ineptd. by G. W. Cater, T. Sparks and P. L. Buvens, all of Houston; confemplate erection of clubhouse.

Va Portsmouth-Community Center.-C. M. Major, 408 Crawford St., is preparing sketches for \$50,000 Jewish community center on County St.; brick and stone.

Va. Richmond-Home.-Masonic Home will erect \$30,000 dormitory on Seven Pines Rd.: 2 stories and basement; 40x70 ft.; fireproof; Baskerville & Lambert, Archts., brick : Travelers' Bldg.

Urbana - Community-house. - Christ Va.. Church, Protestant Episcopal, Rev. F. E. Warren. Rector, will erect \$10,000 communityhouse; 1 story; 30x90 ft.; brick; B. J. Rowlett. Archt., Old Dominion Trust Bldg., Richmond.

### Railway Stations, Sheds, Etc.

Okla., Ponca City. — Atchison, Topeka & Santa Fe R. R., C. F. W. Felt, Ch. Engr., Chicago, will erect 500-ft, extension to freight depot; also construct separate depot for express company.

Tex., Houston.-Texas & New Orleans R. R., W. Hood, Ch. Engr., San Francisco, Cal., will erect \$90,000 storehouse; 3 stories; reinforced concrete, hollow tile and brick; also erect \$110,000 paint shop; steel frame; reinforced concrete.

### Schools.

Ala., Haleyville,-School Board plans to erect high school.

Ala., Pell City.-City School Board will erect \$10,000 school on North Hill.

Ala., Ragland.-Alabama School of Trades and Industries, Watt T. Brown, Chrmn. Board of Trustees, will erect \$75,000 administration building, initial unit; 8 classrooms; auditorium to seat 300; Warren & Knight, Archts., Birmingham.

D. C., Washington. - District Commrs., District Bldg., will erect Southmore School; 2 stories: brick and concrete; 9 classrooms; cost \$65,000.

D. C., Washington.-Georgetown University, Rev. John B. Creeden, Prest., Garrett Park, will erect dormitory; 3 stories; colonial type.

Fla., Arlington. - Duval County Board of Public Instruction, Dr. Fons A. Hathaway. Supt. of Schools, Jacksonville, will receive bids until Apr. 23 to erect \$30,000 school; 1 story; 84x134 ft.; brick; tile or slate-covered shingle roof; yellow pine floors; plans and specifications at office Mark & Sheftall. Archts., Clark Bldg., Jacksonville. (Lately noted.)

Fla., Tampa.-Hillsborough County Board of Public Instruction rejected bids to erect Seminole Heights School; will have plans revised and call for new bids; F. M. Curtis, Archt. (Lately noted.)

Fld., Tampa. - Special School Tax Dist. No. 4 voted \$350,000 school bonds; tentative plans provide addition to Hillsborough High School, \$100,000; Ybor City School in Clarkson subdivision. \$75,000; Robert E. Lee School, \$50,000; addition to Hyde Park Grammar School, \$50,000; addition to George Washington Junior High School, \$20,000; school in West's division, \$30,000; J. E. Knight, Supt., Hillsborough County Board of Public Instruction. (Lately noted.)

Ky., Ashland.-Ashland Institute of Surgery will erect Rogers' Laboratory.

Ky., Brooksville.-School Board will erect \$40,000 school; \$17,000 bonds voted.

La., Plaucheville,-Son Hyman Lumber Co., Memphis, Tenn., will erect schools, (See Dwellings.)

Dr. A. F. Wood, Prest., will erect \$75,000 dormitory; 3 stories; 35x130 ft.; brick, hollow tile and concrete; fireproof; also 2 cottages to cost \$30,000; brick; Flournoy & Flournoy, Archts., 306 St. Paul St., Baltimore, (Previously noted.)

Md., Georgetown.-Board of Education will erect \$25,000 grade and high school; 2 stories and basement; 6 rooms; brick; stone trim; Val P. Collins, Archt., Marion E. Taylor Bldg., Louisville, Kv.

Md., Greensboro.-Caroline County Board of Education, Denton, will erect \$60,000 high school; "T" shape; 80x58 ft.; 111 ft. over all; 2 stories and basement: brick: wood floors; direct-indirect steam heat; ventilating system; flat tar and gravel roof; 12 class rooms; Henry P. Hopkins, Archt., 347 N. Charles St., Baltimore.

Md., Baltimore.-Public Improvement Commission. Robt. Garrett. Chrmn., Garrett Bldg., will expend \$50,000 to install heating plants in following schools: Nos. 4, 25, 31, 33, 34, 35, 37, 39, 62, 63, 72, 78, 80, 92, Bank St., Highlandtown, Fairfield (white), Hillsdale (white) and No. 106.

Miss., Gulfport,-Gulf Park College will erect central academic building, music building, infirmary, etc.; bids opened Apr. 18; Rathbone de Buys, Archt., New Orleans. (Lately noted.)

Mo., Clarence. - Missouri Holiness College will rebuild structure noted burned.

Mo., Elsberry.-Elsberry School Dist. voted \$45,000 bonds to erect high school. Address Dist. School Trustees.

Mo., Kansas City.-Church of Visitation, Rev. T. B. McDonald, Pastor, will erect Visitation School, 5134 Baltimore Ave.; 40x-100 ft.; 2 stories; 8 rooms; cost \$40,000; Owen, Payson & Carswell, Archts., Reliance Bldg.

Mo., Macon. - Catholic Parochial School, Rev. Father Barrett in charge, will remodel Martinique Apartments for chapel, dormitory and classrooms.

Mo., Sparta.-City voted \$12,500 bonds to erect addition to high school, Address Board of Education.

Mo., St. Joseph.-St. Joseph School Dist., Loving, Secy. and Bus. Mgr., defeated \$1,700,000 bond issue. (Lately noted.)

N. C., Brevard.-Rosman School Dist, voted \$15,000 bonds. Address Dist. School Trustees.

N. C., Bryson City.-Swain County School Dist. plans to issue \$50,000 bonds. Address Dist School Trustees.

N. C., Charlotte.-Board of County Commrs. called election May 21 on special tax for Charlotte Dist. No. 2 school, known as Oak Grove.

N. C., Elizabeth City.-City voted \$400,000 school bonds. Address Board of Education.

N. C., Four Oaks.-City voted \$75,000 bonds to erect school. Address Board of Education.

N. C. Greenville -City votes June 14 on \$200,000 bonds to erect elementary school, pay off indebtedness, etc. Address Board of School Trustees.

N. C., Kinston.-City is considering \$900,000 school bond issue to erect 2 elementary schools, high school, etc.; H. R. Curtis, Supt. of Schools. (Lately noted.)

N. C., Newell.-Board of County Commrs... Charlotte, called election May 21 on \$30,000 bonds to erect 2-story brick school.

N. C., Raleigh.-State College of Agriculture & Engineering will erect \$200,000 extension to agricultural building; double mechanical engineering building, \$100,000; erect dormitory to accommodate 200 students, \$140,-000; double seating capacity of mess hall, \$50,000; expend \$50,000 on heating system; Md., College Park.-University of Maryland, laundry, \$20,000; general repairs to buildings,

\$20,000; concrete drives and walks, \$20,000; later erect gymnasium and armory; also buildings for departments of physics, chemistry, horticulture, agricultural engineering and agricultural experiment station.

N. C., Salisbury.-City will vote June 7 on \$500,000 bonds to erect 3 high schools, 12 to 15-room addition to Ellis St. School, 7 or 8room addition to Ennes St. School, 3 to 5room addition to N. Main St. School, 6 to 8-room addition to West Ward School, etc.; Strachan, Mayor. (Lately incorrectly noted at Md., Salisbury.)

N. C., Walnut,-Madison County Board of Commissioners, Marshall, called election May 7 on \$25,000 bonds to erect school.

N. C., Whiteville.-Columbus County Commissioners are considering \$75,000 bond issue to erect high school.

Okla., Altus.-Board of Education, Maud L. Kimbell, Secy., will erect \$60,000 high school; 2 stories and basement; brick and stone; composition roof; A. F. Stewart & Co., Archts., 1213 First National Bank Bldg., Oklahoma City. (Lately noted.)

Okla., Durant.-Bryan County School Board will erect consolidated rural high school at Skaggs; plans vote on \$15,000 bonds.

S. C. Cowards.-Board of Trustees will receive bids until May 2 at office W. D. Harper, Archt., Florence, to erect high school, material furnished by owner; separate bids for heating and plumbing, contractor furnishing material; 12 classrooms and auditorium; brick and frame; built-up roof; wood floors; low pressure steam heat; independent electric lighting plant; cost \$22,000; plans and specifications at office Z. C. Lynch, Chrmn. Board of Trustees, Cowards. (Lately noted.)

S. C., Due West-Woman's College will erect dormitory; accommodate 100 students; Jas. C. Hemphill, Greenwood, S. C., and Jas. A. Salter, Raleigh, N. C., Asso, Archts.

Tenn., Columbia.—Bigbyville and McCains communities consolidated and plan to erect 25,000 school; Prof. John P. Graham, County

Tenn., Knoxville.-Carson-Newman College, Rev. J. Pike Powers, Chrmn. Board of Trustees, will erect \$40,000 brick gymnasium, dormitory building and home for president.

Tenn., Nashville,-Trevecca College will erect J. O. McClurkan Memorial Hall.

Tex., Alice.-Alice Independent School Dist. Trustees are considering erecting high school.

Tex., Emory.-School Board, B. A. Carter, Prest., will erect 2-story and subbasement brick school; bids opened; Wm. R. Ragsdale, Archt., Greenville, Tex.

Tex., Floydada.-School Board will erect 875,000 school; 148x80 ft.; semi-fireproof; hollow fireproof tile; tar and gravel roof; hardwood and concrete floors; ornamental terra-cotta; metal ceilings; wire glass; vaults; ventilators; steam heat, \$12,000; electric lights, \$3000. Address E. H. Reed, Archt., Cisco. (Lately noted.)

Tex., Harlingen.—Harlingen Independent School Dist. voted \$30,000 bonds. Address School Board. (Lately noted.)

Tex., Hillsboro. - City, J. W. Freeland, Mayor, voted \$60,000 bonds to repair grammar school, erect ward school and junior college. (Lately noted.)

Tex., Houston.-School Board will Southmore School; tentative plans call for 4 units: main unit to contain 9 class rooms. 2 other units, 4 class rooms each and 4th unit. auditorium: also plans to erect school in Hyde Park and building for Edmundson

Tex. Kingsville .- Tex-Mex Institute. Dr. J. W. Skinner, Supt., will erect dining hall.

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Tex., Palestine.—City Board of Education, Bonner Frizzell, Supt. Schools, will erect building to replace Lincoln High School, lately noted burned; cost \$75,000 to \$100,000; S to 10 rooms and auditorium; brick and hollow fireproof tile; composition roof; hardwood and concrete floors; rolling partitin; metal ceiling; probably steam heat. (See Machinery Wanted—Desks; Shades; Lockers.

Va., Callao.—Callao High School Trustees will erect \$17,000 building to replace previously noted burned structure; brick; 8 class rooms and auditorium.

Va., Chatham.—Chatham Training School, Aubrey H. Camden, Prest., will erect \$50,000 gymnasium; 4 stories; 48x87 ft.; brick; Hoard & Chesterman, Archts., Peoples Bank Bldg.

Va., Portsmouth.—City Board of Education will erect high-school addition; brick; Chas. M. Robinson, Archt., Times-Dispatch Bldg., Pichwood

Va., Vienna.—Providence School Dist., H. F. Williams, Chrmn., will erect school and auditorium; 1 story; brick; Clark & Adams, Archts.

W. Va., Barrackville.—Fairmont Dist. Board of Education, Fairmont, will erect \$100,000 grade and high school; 2 stories and basement; brick; stone trim; steel columns, beams and girders; concrete and wood floors; C. H. Snider, Archt., Profession Bldg., Fairmont. (Previously noted.)

W. Va., Exchange. — Board of Education, C. L. Heater, Chrmb., Gassaway, will erect \$25,000 high school; 2 stor. & and basement; 58x80 ft.; frame; A. Bretern's. Archt., Fordyce Bldg., Clarksburg.

W. Va., Gassaway.—Otter District Board of Education will erect high school; 90.4x143.4 ft.; brick and hollow tile, basement native gray stone; hardwood and concrete floors; wire glass; ventilators; steam heat; electric lights; Albert Breternitz, Archt., Clarksburg; plans on file Apr. 16 at office of Board. Address C. L. Heater, Secy., Gassaway.

W. Va., Morgantown.—Saint Francis Convent, Father Peter Flint, will erect 2-story-and-basement convent; 32x64 ft.; brick; tile walls; stone trim; Albert Breternitz, Archt., Fordyce Bldg., Clarksburg.

W. Va., Northfork. — Northfork School Dist. votes Apr. 22 on \$90,000 bonds to erect \$50,000 colored high school; also schools at Crumpler and Ashland; W. Paul Worley, Secv. Board of Education. (Lately noted.)

W. Va., Philippi.—Philippi Public Schools, Dr. F. B. Murphy, Prest., will erect \$90,000 grade and high school; 2 stories; brick; Edw. J. Wood, Archt., Clarksburg. (Lately noted.)

W. Va., Salem.—Salem Independent School Dist., E. J. Woofter, Clk., will erect 2 grade schools; 2 and 3 stories; brick; cost \$75,000; S. W. Ford, Archt., Clarksburg. W. Va., Union.—Union School Dist. votes

W. Va., Union.—Union School Dist. votes Apr. 23 on \$20,000 bonds to erect brick school; 2 stories and basement; C. H. Snider, Archt., Professional Bldg., Fairmont. (Lately noted.)

### Stores.

Ala., Birmingham.—Louis Pizitz Dry Goods Co., Jos. Smolian, Gen. Mgr., will erect building; 7 or 8 stories; Harry B. Wheelock, Archt., Steiner Bldg., Birmingham; Starrett & Van Vleck, Asso. Archts., 8 W. 40th St., New York. (Lately noted.)

Ark., Wynne.—Mike Drexler will rebuild 2 brick buildings at Merriman Ave. and Front St.

D. C., Washington.—M. A. Leese, 614 9th St. N. W., will erect \$10,000 addition to store and apartment building; 2 and 3 stories; brick, Fla., Eustis.-A. M. De Witt will erect 1-story brick business building on Bay St.

Fla., Miami.—Halsema Bros. will erect cement block store building on S. W. First St.; also concrete building; total cost \$36,000; construction by owners.

Fla., Cocoa.—A. R. Trafford will erect business building on Harrison St.; 2 or more stories; brick.

Fla., River Junction.—E. H. Boykin & Co, and Gadsden County State Bank will erect store, 50x100 ft., and bank, 20x60 ft., to replace lately noted burned structures; brick and hollow fireproof tile; tin roof; metal ceilings and doors; wood and concrete floors; steel sash and trim; ventilators; vaults; Delco lights; hand elevator; bids opened April 20. Address E. H. Boykin.

Fla., Tampa.—E. H. Steinberg & Co. will erect business building on Seventh Ave.

Ky., Hazard. — Wells & Franks will erect store.

Ky., Lexington.-J. D. Purcell & Co., J. D. Purcell, Prest., will erect business building.

Mo., Kansas City.—Sophonia Realty Corp. will remodel 3-story and basement store and loft building at 17th and Main Sts.; 50x115 ft.; brick and stone; mill construction, composition roof; Geo. Carman, Archt., 1332 Grand Ave.

N. C., Greensboro.—W. H. Matthews will erect business building on East Washington St. '

N. C., Wilkesboro. — Vaughin-Hemphill Co. will erect 2-story brick store; 50x100 ft.

Okla., Enid. — Herzberg Department Store will expend \$26,000 to remodel building.

Okla., Muskogee.—Mrs. A. Z. English and Mrs. J. C. Cook will erect 6 stores on Broadway.

Va., Norfolk.—Wm. E. Thomas, Riverside, will erect \$10,000 store and residence; one story; 95x29 ft.; brick; cost \$10,000; Harvey Abrames, Archt., Arcadè Bldg.

Va., Richmond. — Harold Garment Shop, Inc., A. M. Ruberstein, Mgr., 218 E. Broad St., will alter and erect addition to store; 3 stories; 44x136 ft.; brick; Barnham & Hofman, Archts., Chamber of Commerce Bldg.

Va., Richmond.—Chas. S. Jurgens Sons will erect 6-story building at Adams and Broad Sts. to replace lately-noted burned structure; brick; cost \$100,000.

Va., Richmond.—Hopkins Furniture Co., Inc., will erect \$70,000 building at 25 W. Broad St. to replace lately-noted burned structure; brick; 4 stories.

W. Va., Beckley. — Gus Farris and Nick Rahall will erect business block at Fayette and Main Sts.; Mr. Rahall will also erect 3-story business block on Main St.

W. Va., Clarksburg.—Saml. Folio will erect \$20,000 business and apartment building at Clark and 4th Sts., Glen Elk; 3 stories; brick, concrete and steel.

W. Va., Fairmont.—C. D. Robinson will erect 3-story business building at Merchant and Newton Sts.

W. Va., Keyser.—H. B. Wilson will rebuild store; 2 stories; 20x35 ft.; brick or stucco; cost \$10,000; day labor; H. W. Baker, Archt.

W. Va., Richwood.—Richwood Co-operative Assn., A. M. Cole, Mgr., will erect store building; fireproof; 3 and 4 stories; cost \$30.000.

W.Va., Vanwood.-Wood-Sullivan Coal Co., Mullens, postponed indefinitely erection of store building. (Lately noted.)

### Theaters.

Fla., De Land.—De Land Amusement Co, will erect theater on W. Indiana Ave.; brick and tile.

Fla., Pensacola. — Majestic Theater, Mr. Bickett, Mgr., will rebuild theater; increase scating canacity to 1500.

Ky., Central City.—E. M. and S. C. Gish, Jr., Barton Jourdaine and others will erect New Selba Theater; fireproof; brick; 70x112 ft.

Md., Baltimore. — Edmondson Amusement Co., Louis Schlichter, Prest., 2100 Edmondson Ave., will erect moving-picture theater at 12-14 E. 25th St.

Mo., Cape Girardeau.—John T. Sackman, C. O. Hobbs, A. W. Blattner and others will crect \$80,000 moving-picture theater and vaudeville theater; fireproof; brick; 1 story and basement; 60x163 ft.; C. A. Koernor Engineering Co., Engr., ◆Odd Fellows' Bldg., St. Louis. (Lately noted.)

Mo., Cape Girardeau.—John T. Sackman, C. O. Hobbs, A. W. Blattner and others will erect \$75,000 moving-picture and vaudeville theater; 60x163 ft.; 1 story and basement; brick and hollow fireproof tile; ornamental terra-cotta; metal ceilings; interior tile; c mposition roof; wood floors; ventilators; bids opened about May 1; Koerner Engineering Co., Engr., Odd Fellows' Bldg., St. Louis, (Lately noted.)

Mo., Wellston.—Wellston Amusement Co., 6468 Battmer Ave., St. Louis, will erect \$65,000 theater, store and office building on Easton Ave.; 2 stories; 59x178 ft.; semi-fireproof; brick; Nolte & Nauman, Archts., Fullerton Bldg., St. Louis. (Lately noted.)

N. C., Asheville.—Southern Enterprises will erect \$150,000 theater; seating capacity, 1600 to 1800.

Okla., Duncan.—Frank Miller and associates will erect theater; 2 stories.

W. Va., Charleston.—T. L. Kearse Circuit of Theaters, T. L. Kearse, Gen. Mgr., Strand Theater, will erect \$250,000 theater; 5 stories and basement; brick and reinforced concrete; Mills & Millspaugh, Archts., 67 E. Long St., Columbus, O.

### Warehouses.

Ala., Anniston.—Malone-Woodruff Co. will erect second-story addition to storage and display building on Noble St.

Fla., Avon Park.—G. P. Turner, R. L. Franklin and others will erect warehouse and storeroom on Butler Ave.; 100x175 ft.

Ky., Louisville.—Corey-Scheffel Lumber Co, will erect \$20,000 warehouse at 2133 Frankfort Ave.

La., New Orleans.—Crane Co., Chicago, will erect warehouse and sales office on Gaiennie St.; 100x160 ft.; 5 stories; brick; mill type construction; also erect 1-story pipe shop and garage; Emile Well, Archt., New Orleans.

Md., Easton.—Atlas Wheelbarrow & Truck Co., 405 S. Washington St., will erect 2 warehouses; 2 or 3 stories; 50x200 ft.; brick; cost \$40,000.

Mo., Kansas City.—Kansas City Power & Light Co. will erect warehouse and garage: 4 stories and basement; 162x266 ft.; brick, stone and reinforced concrete; composition roof; A. E. Bettis, Archt., 15th St. and Grand Ave.

N. C., Reidsville.—American Tobacco Co., C. A. Penn, V.-P., will erect storage and stemmery building; 5 stories; John D. Briggs, Archt., Raleigh.

Tex., Dallas.—Gulf, Colorado & Santa Fe R. R., F. Merritt, Ch. Engr., Galveston, will crect iron-clad factory and warehouse at 220 S. Pearl St.; cost \$26,000.

Tex., Mexia.—Humphrey Co. will erect ware-houses, pipe yard and storerooms.

Va., Petersburg.—Friend & Co. will erect \$30,000 warehouse and office building; two stories; 64x86 ft.; brick; Coopee Lai, Archt., Law Bldg.

## BUILDING CONTRACTS AWARDED

### Apartment-Houses.

Fla. Jacksonville.—P. D. Lampu will erect \$30,000 apartment-house in Springfield; 2 stories; brick; 8 apartments; 45x94 ft.; Chas. Wilson, Contř.

N. C., Greensboro.—W. W. Dick will convert warehouse on Bellemende St. into 3-story-and-basement apartment-house and erect building for office and heating plant; 18 suites; 40x190 ft.; office, 20x80 ft.; cost \$80.000; also erect similar apartment-house adjoining present structure upon completion of first; J. C. Morris, Contr. (Lately noted.)

Mo., St. Louis.—Fred. Korth, 462 Bonhomme

Mo., St. Louis.—Fred. Korth, 462 Bonhomme Ave., will erect \$40,000 apartment-house at Maramac and Le Rue Rd.; 3 stories; 6 suites; 60x48 ft.; L. Hagar, Archt., 3844 Utah Pl.; W. Schasserre, Contr., 5864 Theodosia Ave. (Previously noted.)

S. C., Greenville.—Southeastern Life Insurance Co. will erect \$75,000 to \$100,000 apartment house at W. McBee Ave. and Richardson St.; 3 stories and basement; 21 suites; brick and terra cotta; colonial type; Martin & Ward, Archts.; Wm. Ortale, Contr.

### Bank and Office.

Fla., Miami Beach.—First National Bank will erect \$65,000 bank and office building at Alton and Lincoln roads; 2 stories; 45x100 ft.; cement block and stucco; built-up roof; wood and marble floors; H. Geo. Fink, Archt., Miami; Beach Construction Co., Contr., Miami Beach. (Lately noted.)

Miss., Laurel.—Commercial Natl. Bank & Trust Co. will erect building; 30x73.8 ft.; fire-proof; steel trusses; pressed brick and terracotta trim; possibly stone exterior; Henry G. Markel. Archt., 224-225 Whitney-Central Bldg., New Orleans; Hancock & McArthur, Contrs., Meridian, Miss.; Chas. Wenar Co., Equipment Engrs., Canal-Commercial Bank Bldg., New Orleans, will let contracts for banking-room screen and fixtures. (Lately noted.)

### Churches.

Ala., Birmingham.—Christ English Lutheran Church will erect \$25,000 building at 20th St. and Fourteenth Ave, north; Day & Sachs, Contrs. (Previously noted.)

Ala., Clanton.—Eaptist Church will erect \$30,000 to \$40,000 building; pressed brick and stone; Mr. Christian, Contr., Jackson, Miss.

Ala., Tuscaloosa.—First Presbyterian Church will erect \$125,000 building: 110x124 ft.; brick; stone trim; slate roof; rift pine and concrete floors; ornamental terra-cotta: hot-water heat, \$10,000; electric lights, \$1000; R. H. Hunt, Archt, Chattanooga, Tenn.; Smallman-Brice Construction Co., Contr., Birmingham, Ala. (Lately noted.)

Md. Baltimore.—St. Paul's M. P. Church, Rev. F. D. Reynolds, Pastor, will erect 2-story building at Linwood Ave, and Monument St.; Port Deposit granite; John Freund, Archt., 1307 St. Paul St.; Hicks, Tase & Norris, Inc., Contrs., 106 W. Madison St.

Md., Baltimore. — Holy Trinity Protestant Episcopal Church, Rev. W. Weir Gilliss, Rector, will erect \$25,000 parish-house at Lafayett and Wheeler Ares.; 31.4x98.8 ft.; stone, concrete and wood; slate roof; composition floors; Wm. W. Emmart, Archt., Union Trust Bldg.; John, Hiltz & Sons Co., Contr., 2 E. Redwood St. (Previously noted.)

Mo., Kansas City.—Colored Methodist Church, Rev. J. W. S. Lowe, Pastor, will erect \$40,000\_ Jamison Temple at 1815 the Paseo; brick and stone; 47x107 ft.; Southern Colonial design; Wilkinson & Crans, Archts.; J. R. Miner, Contr.

Tenn., Memphis.—Sacred Heart Catholic Church., Rev. P. L. Mahony, Pastor, 85 N. Cleveland St., will erect \$100,000 building; 76x 165 ft.; brick, stone and steel; tile roof; tile. wood and concrete floors; steam heat, \$3500; safes; interior tile; vaults; Hanker & Cairns, Archts., Scimitar Bldg.; Fred. B. Young & Son, Contrs. (Lately noted.)

### City and County.

Va., Norton—Tabernacle,—City will erect Billy Sunday tabernacle, to be converted into municipal building later; 150x100 ft.; brick; 3-ply roll roof; seat over 4000; Surface-Miller Co., Contr., Christiansburg. (Lately noted under Churches.)

### Courthouses.

Miss., Belzoni.—Humphreys County Board of Supvrs., Dr. J. S. Jackson, Prest., will erect courthouse and jall; Kramer & Lindsley, Archts., 50-53 Kress Bldg., Jackson; J. V. & R. T. Burkes, Hattlesburg, Contrs. at \$166.000; Kiddy & Hussy, Columbus, plumbing at \$10,500; Jones Electrical Co., wiring at \$5750; Fisher Heating Co., Memphis. heating at \$9449. (Lately noted.)

### Dwellings.

Ala., Mobile.—N. J. and S. Gonzales will erect 4 bungalows near Monroe and Lawrence Step ; cost \$20,000; W. W. Thompson, Archt-Contr.

Fla., St. Petersburg.—O. S. Tiffany will erect \$10,000 residence on Seventeenth Ave.; W. S. Shull, Archt.; the Beard-French Co., Contr.

Ky., Hopkinsville.—L. M. Cayee will erect \$25,000 residence; 2 stories and basement; 47x 72 ft.; brick veneer and hollow tile; tile shingle roof; concrete, hardwood and tile floors; hollow fireproof tile; mail chutes; ventilators; Nevin, Wischmeyer & Morgan, Archts., 1317 Stark Bidg.. Louisville; Forbes Mfg. Co., Contr., Hopkinsville. (Lately poted)

Md., Baltimore.—Wm. Stalford, 1706 E. Lafayette Ave., will erect \$10,000 residence on Mayfield Ave., near Harford Rd.; 2½ stories; brick; 36x27 ft.; slate roof; hot-water heat; Geo. A. Gebb, Contr., Mayfield and Groseland Ave.

Md., Baltimore.—J. Howard Atterbury, 223 E. Redwood St., will erect \$10,000 residence on Rugby Rd., near Overhill Rd.; 3 stories; frame; 25x40 ft.; Edw. L. Palmer, Jr., Archt., 513 N. Charles St.; John Cowan & Son, Contrs., 17 E. Lafayette Ave. (Lately noted.)

N. C., Asheville. — Maude Coxe will erect \$18,000 residence on Pearson Drive; 2 stories; 6 rooms; tapestry brick; G. W. Wrenn, Contr.

N. C., Reidsville.—J. H. Burton will expend \$12,000 to remodel residence on S. Main St.; J. W. Walker, Contr.

N. C., Reidsville,—B. F. Sprinkle will erect 6 dwellings on N. Scales and Wentworth Sts.; contract let.

N. C., Reidsville,—E. H. Wrenn, Jr., will erect residence on Maple Ave.; contract let.

N. C., Reidsville.-E. R. Harris will erect residence on Irvin St.; contract let.

Tex., Austin. — R. S. Robinson will erect \$12,755 residence in Enfield; 2 stories; stucco; Edwin C. Kreisle, Archt., Scarbrough Bldg.; Claude Traweek, Contr.; hot-air heating, J. O. Buaas, \$700; plumbing and wiring, John L. Martin, \$2190.

Tex., Bonham.—A. B. Scarborough will erect \$50,000 residence; brick; Russell Brown Co., Dallas, Archi.-Contr.

Tex., Rockdale,—Rockdale Consolidated Coal Co. will erect 20 miners' dwellings, 2 mi. from Rockdale; Turner Lumber Co., Contr.

Va., Danville,—Dr. J. A. Tyree will erect \$12,000 residence on Virginia Ave.; contract let.

Va., Norfolk.—M. McKevitt will erect \$10,200 residence in Washington Park; W. E. Dear, Cont.

W. Va., Wheeling.—John E. Reid will erect three \$4000 dwellings and two \$10,000 dwellings on Birch Ave., Birch Lynn; Geo. W. Petticord, Contr. (Lately noted in part.)

### Government and State.

Tex., Celeste—Postoffice.—G. D. Henslee will erect postoffice building; 24x90 ft.; Wm. Ragsdale, Contr. (See Contracts Awarded— Stores.)

### Hospitals, Sanitariums, Etc.

Md., Catonsville.—State Lunacy Commission will erect hospital for criminal insane at Spring Grove Asylum; cost, \$60,000, exclusive of plumbing and heating; 4 stories; 32x98 ft.; brick; slate roof; concrete floors; steam heat; Henry P. Hopkins, Archt., 347 N. Charles St.; Hicks, Tase & Norris, Contrs., 106 W. Madison St., both Baltimore. (Previously noted.)

Tex., San Antonio.—Santa Rosa Infirmary will erect \$199,000 annex at Houston St. and Santa Rosa Ave.; 5 stories; 160x80 ft.; fire-proof; reinforced concrete faced with brick; terra-cotta trim; tar and gravel roof; concrete, tile, marble and cork floors; steam heat; city lights; electric elevators; \$20,000; hollow fireproof tile; interior tile; metal doors; wire glass; 100 patients'-rooms; 6 operating-rooms; Altee B. Ayres, Archt., 626 Bedell Bldg.; J. C. Diehlman, Contr. (Previously noted.)

### Hotels.

Md., Cumberland.—George Washington Hotel Co., Jos. H. Reinhart, Treas., is reported to erect \$1,500,000 hotel; 300 rooms; Essenwein & Johnson, Archts., Buffalo, N. Y.; W. L. & G. H. O'Shea, probable Contrs., 29 Broadway, New York. (Previously noted.)

Mo., Goff Springs.—Goff Mineral Spring & Hotel Co., J. L. Goff, Desloge, will erect hotel and summer resort; 3 stories; 157½x177 ft.; cost, \$250,00; O. J. Bopp, Archt., Odd Fellows Bldg.; Wm. L. Denham, Contr., 336 Arcade Bldg., both St. Louis.

Tex., Galveston.—B. A. Riesner, Houston, will remodel building at 25th St. and Ave. D for hotel; Stowe & Stowe, Archts., Galveston; contract let.

### Miscellaneous.

Va., Portsmouth—Stable.—Portsmouth Coal & Ice Co., Inc. will erect \$12,000 brick stable on High Street; 1 story; 47x222 ft.; E. C. Ford, Contr.

Va., Richmond—Home.—Masonic Home will erect \$35,000 dormitory on Seven Pines Road; 2 stories and basement; 60x75 ft.; fireproof; brick and hollow fireproof tile; slate roof; terrazzo, wood and concrete floors; metal doors; wire glass; steel cash and trim; ventilators; vapor heat; electric lights; Baskerville & Lambert, Archts., Travelers' Bldg.; W. L. Ragland & Son, Contrs. (Lately noted.)

### Schools.

Ky., Paducah.—Board of Education, Dr. J. T. Redrick, Prest., will erect Augusta Tilghman High School gymnasium; 54x98 ft.; brick

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and fabricated steel: Barrett specification roof; concrete floors covered with hardwood; steam heat; electric lights; Nevin, Wischmeyer & Morgan, Archts., Louisville, Address Geo. W. Katterjohn & Son, Contrs., Box 83, Paducah. (Lately noted.)

April 21, 1921.

La., Wisner.-School Board will erect 2-story brick school; cost \$45,000; Edw. F. Nield, Archt., Shreveport; Bost & Moss, Contrs., Natchez. (Lately noted.)

Miss., Columbia.-State Bond Improvement Comsn., Jackson, will erect vocational building, storage plant and boys' and girls' cottages at State Industrial and Training School; cost \$150,000; Theo. C. Link, Archt., Capitol Bidg., Jackson; J. V. and R. T. Burkes, Contrs., Hattiesburg. (Lately noted.)

Mo Grandview -- Board of Education Dist. No. 64, will erect brick school; Hawkins & Hoener, Archt.; Pauly Construction Co., Contr., both Springfield. (Lately noted.)

N. C., Reidsville,-Board of Education will erect \$40,000 grade school; 70x80 ft.; brick, steel, reinforced concrete and hollow fireproof tile; asbestos shingle roof; rift pine and concrete floors; plaster board; metal doors; wire glass; ventilators; steel sash and trim; steam or hot-air heat, with fan, \$4500; electric lights; W. C. Northup, Archt., Winston-Salem. Address L. B. Flora, Contr., Danville, Va. (Lately noted.)

Tex., Lamesa,-School Board, Albert Oquin. Secy., will erect \$57,000 school; 58x136 ft.; stories and basement; concrete, brick and hollow tile; paper, pitch and gravel roof; wood floors, concrete in basement; metal ceilings; ventilators; Walter E. Taylor, Archt.. Lubbock; Fred. Bone, Contr., Amarillo. (Lately noted.)

Va., Buffalo Ridge.-Blue Ridge Mountain School will erect auditorium and dormitory; W. C. Johnson, Contr., Stuart.

W. Va., Richwood.-Richwood Independent School Dist., C. E. McFadden, Secy., will erect gymnasium; 2 stories and basement; 62x76 ft.; brick; cost \$50,000; L. J. Dean, Archt., Foster Bldg., Huntington; J. A. Tincher, Contr., Richwood, (Lately noted.)

W. Va., Welch.-Brown's Creek Dist. Board of Education, L. J. Hanifan, Supt. of Schools will erect \$125,000 school; brick and stone;

slate roof; maple and tile floors; heating plant, \$5000; Alex. B. Mahood, Archt., Bluefield; King Lumber Co., Contr., Charlottesville. Va. (Previously noted.)

### Stores.

Ala., Fort Payne.-W. H. Elrod. Dawson, will remodel store building; also érect building adjoining; 25x75 ft.; 1 story; R. J. Chitwood, Contr.

Fla., River Junction.-W. L. Shepard will erect building to replace lately noted burned structure; 75x100 ft.; brick; cement or tile floors; electric lights; metal doors; wire glass; steel sash and trim; safes; Kevilecki Bros., Archts.-Contrs., Bainbridge, Ga.

Ga., Athens.-Michael Bros. will erect 3-story and basement building; English Georgian style; buff Indiana limestone front; gray brick finish; walls plastered with imitation caen stone; hardwood interior finish; 2 passenger and one freight electric elevators; Hentz, Reid & Adler, Archts., Atlanta; Foundation Co., Contr., Atlanta and New York,

Ky., Ashland .- M. F. Field will erect building at 17th St. and Winchester Ave.; 6 stories and basement: 50x143 ft.: fireproof: H. W. Cox. Contr.

Tex., Celeste.-G. D. Henslee will erect store; 60x120 ft.; warehouse, 60x115 ft.; postoffice, 24x90 ft.; brick; composition roof; concrete floors; metal ceilings; wire glass? steel sash and trim; steam heat; electric lights; cost \$25,000; Wm. Ragsdale, Contr. (Structures lately noted burned.)

Tex., Fort Worth.-J. W. Goodspeed, 87 Monroe Ave., Grand Rapids, Mich., will erect \$20,-00) store and cafe building at 1108-10 Main St.; 50x95 ft.; brick; gravel roof; wood floors; wire glass; steel sash and trim: natural-gas heat electric lights; F. J. Singleton, Archt.; Echols Bros., Contrs. (Lately noted.)

Tex., Temple.-Frank Doering will erect 2story hollow tile and steel building at 3d St, and Adams Ave.; 110x150 ft.; S. E. Johnston Construction Co., Contr., Waco.

Va Roanoke - J. M. McNelis will erect 3story and basement brick building on Church Ave.; 2 elevators; Frye & Chesterman, Archts.; Martin Bros., Contrs.

### Theaters.

Md., Annapolis.-Star Amusement Co. will erect \$25,000 store and theater building, Calvert and West Sts.; seating capacity 400; Oliver B. Wight, Archt., 1101 Munsey Bldg., Baltimore : C. E. Williams, Contr., Annapolis.

Md. Easton -General Amusement Co. H. P. Turner, Prest., will erect \$25,000 theater and store building; 1 story; 40x90 ft.; Frank Ross, Archt.-Contr., 402 S. Harrison St. (Previously

Mo., Springfield.-Barbour Booking Offices, Muskogee, Okla., will expend \$40,000 to re-model theater; 2 stories and basement; Carl Boller & Bro., Archts., Ridge Bldg., Kansas City, Mo.; Heckenlively & Mark, Asso. Archts., Landers Bldg., Springfield: Harry T. Myers, Contr., Springfield, (Lately noted.)

Mo., St. Louis,-Chas, Warner, Marcus and Moffitt Aves., will erect \$60,000 theater, store and office building; 2 stories; 100x132 ft.; fireproof; brick; Nolte & Nauman, Archts., Fullerton Bldg.; John Loncaire, Contr. (Lately noted.)

Tex., Bonham.-Will H. Evans and A. B. Scarborough will erect \$60,000 theater: 51x137 ft.; 2 stories; brick and concrete; stone trim; Sparger & Peters, Archts.; John P. Steger, Contr. (Lately noted.)

### Warehouses.

Ala., Tuscaloosa.-Burchfield Bros. will erect warehouse; 82½x267 ft.; walls 13 in. thick; fireproof; systrane blocks; concrete floors; E. G. Morris, Contr., Annisten. (Lately noted.)

Md., Baltimore.-Sun Realty Co., 308-10 Exchange Place, will erect \$25,000 warehouse lately noted; 4 stories; 27x80 ft.; brick; slag roof; freight elevator; wire glass. Address J. S. Downing, Archt.-Contr., 11 York Court. (See Machinery Wanted-Hoist; Mixer.)

Mo., Kansas City.-Monarch Transfer Co., 31st and Michigan Aves., will erect warehouse; 6 stories and basement; 50x95 ft.; brick and terra-cotta; stone trim; composition roof; C. B. Sloan, Archt., 321 E. 11th St.; Collins Contrs., 536 Rialto Bldg. (Lately

Tex., Celeste.-G. D. Henslee will erect warehouse; 60x115 ft.; Wm. Ragsdale, Contr. (See Contracts Awarded-Stores.)

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Aerial Tramway. - Ward-Pocahontas Coal Co., T. A. Lambert, Prest., Welch, W. Va .-Aerial tramway.

Air Compressor.-D. C. Elphinstone, 408 Centinental Bldg., Baltimore, Md.-Straightline steam-driven air compressor, 157 ft.; Ingersoll-Rand preferred.

Ammonia Compressor. - L. M. Rogers, Rogerdale Farm, Ridgeville, S. C .- 1 or 2-ton ammonia compressor; state price, etc.

Art Glass.-Smith Hood, Fairmont, W. Va .- Prices on art glass for church.

Automobile Accessories .- Dungannon Moter Co., O. E. Bevins, Mgr., Dungannon, Va. Bids May 1 on automobile accessories and tools

Baskets.-H. Herzfeld, Alexander City, Ala. Prices on baskets or crates for potato shipment; about 11,000 bu. annually.

Boilers .- J. O. Ashworth, Supt. Planters' Oil Mill & Gin Co., Kosciusko, Miss .- Two 200 to 250 H. P. water-tube boilers with stokers; Babcock & Wilcox preferred.

Bookbinding Machines, etc.-Sadhan & Co., 100 Upper Circular Road, Calcutta, India.— To represent mfrs. of printing and bookbinding machines, printing ink and stationery.

Box Printer, etc.-Emporia Iron & Metal Co., North Emporia, Va.-Second-hand Hooper box printer, two-color, with automatic attachments.

Brick,-Carl L. Gillis, Adrian, Ga.-Prices on brick. (See Building Material.)

Brick .- Jas. W. Walker, Reidsville, N. C .-Prices on hard and salmon brick. (See Building Material.)

Brick .- Smith Hood, Fairmont, W. Va .-Prices on brick. (See Building Material.)

Bridge Construction. — Adams County Supvrs., H. B. Vaughan, Prest., Natchez, Miss .- Bids until May 3 to build bridges over Wickland Bayou and Wade's Bayou; plans, etc., with Chancery Clk.

Bridge Construction. - Buchanan County Supvrs., S. R. Hurley, Clk, Grundy, Va.-Bids until May 3 to construct approaches to bridge across Knox Creek; specifications from State Highway Comsn., Richmond, Va.

Bridge Construction. — State Highway Dept., Jefferson City, Mo .- Bids until Apr. 25 to build 6 bridges; Federal Aid Project 99, Clay County; \$20,219.54; plans, etc., with County Clk., Liberty; A. C. Singley, Div. Engr., St. Joseph, Mo., and State Highway Dept., Jefferson City, Mo.

Bridge Construction .- State Highway Department. Jefferson City, Mo. - Bids until Apr. 30 to build reinforced concrete bridges: Federal-aid Project 59; \$11,071.80; etc., with County Clk., Poplar Bluff, Mo.; M. S. Murray, Div. Engr., Sikeston, Mo., and State Highway Dept., Jefferson City, Mo.

Bridge Construction .- Webb County, Winslow, County Judge, Laredo, Tex.—Bids until Apr. 30 to build steel and reinforced concrete bridges and culverts on State Highway No. 2; 35.4 mi. road; T. R. Spence, County Engr.

Bridge Construction.-Virginia State Highway Comsn., 116 S. 3d St., Richmond, Va.— Bids until May 3 to build steel and concrete bridge 98 ft. long over Dry Creek on State Road No. 10, Lee County; Virginia Project No. 60; plans, etc., on file at Richmond and with Res. Engr., Bristol, Va.

Bridge Construction .- State Highway Department, Jefferson City, Mo. - Bids until Apr. 26 to build reinforced concrete bridge; State-aid Project S-20.20; plans, c.c., with County Clk, Grant City; A. C. Singley, Div. Engr., St. Joseph, Mo., and State Highway Dept., Jefferson City, Mo.

Bridge Construction.-Virginia State Highway Comsn., 116 S. 3d St., Richmond, Va .-

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Bids until Apr. 26 to build reinforced concrete bridge 96 ft. long over Brook Run, Henrico County, on State Road No. 1; Virginia Project S-91; plans, etc., on file,

Bridge Construction.-Virginia State Highway Comsn., 116 S. 3d St., Richmond, Va .-Bids until Apr. 26 to build reinforced concrete bridge 83 ft. long over Rose Creek, Brunswick County, on State Road No. 1; Virginia Project S-92; plans, etc., with Res. Engr., Lynchburg, Va.

Bridge Construction .- Ellis County, F. L. Wilson, County Judge, Waxahachie, Tex .-Bids until Apr. 22 to build 60-ft, steel truss bridge, 60-ft, steel I-beam and two 20-ft. steel I-beam bridges; 81/2 ml. road; plans, etc., from G. G. Edwards, Engr., Ennis, Tex.

Bridge Construction, - Ironton Russell Bridge Co., Ironton, O.-Bids about June 1 for \$700,000 bridge, cantilever type; plans, etc., on file

Bridge Construction. - Harrison County Court, Clair N. Parrish, Clk., Clarksburg, W. Va., and Lewis County Court, Leander Troxell, Clk., Weston, W. Va.—Bids until May 16 to build intercounty reinforced concrete bridge over Kincheloe Creek: plans, etc., with County Road Engr., Clarksburg, or County Road Engr., Weston, W. Va.

Bridge Construction. - Concordia Parish Police Jury, B. C. Brown, Prest., Vidalia, La. Bids until July 2 to construct bridge over Wild Cow Bayou on Black River; steel or creosote pile.

Buffers.-K. B. Nixon, Prest. Champion Tire Patch Co., Lincolnton, N. C .- Prices on buffers.

Building Material.-Jas. W. Walker, Reidsville, N. C.—Prices on building material, including hardwood floors, plaster board, interior tile, concrete floors, steel sash and trim, hard and salmon brick.

Building Material.-Carl L. Gillis, Adrian, Ga .- Prices on building material, brick and tile for residence.

Building Material.-Peaks of Otter Lumber Co., Bedford, Va,-All kinds of building material.

Building Materials. - George H. Koepp, Koepp Spur, P. O. Covington, La .-- Prices on sash, door and blinds

Building Material.-Smith Hood, Fairmont, W. Va.-Prices on building material for \$100,000 church including brick and terra cotta.

Cannery Equipment. - Eldorado Farm, Eric W. Hardy, Secy., Augusta, Ga.-Data and prices on cannery equipment to handle product from 300 to 400 acres of peas, corn, beans and tomatoes.

Cans.-Master Products Co., E. R. Aiken, Secy.-Treas., 1107 E. Carey St., Richmond, Va .- Quart cans with screw or solder top, oblong oval.

Can-filling Machinery, etc.-Master Produets Co., E. R. Aiken, Secy.-Treas., 1107 E. Cary St., Richmond, Va.-Bids until Aug. 1 for can and bottle-filling machinery.

Cement .- City, P. L. Vinson, Chrmn. Light and Water Committee, Sebring, Fla.-Prices on cement.

Chemicals. -- R. W. Koneschik, Box 348, Taylor, Tex.-Chemicals to be used in tannery.

Mixers. - City. P. L. Vinson. Chrmn. Light and Water Committee, Sebring, Fla .- Prices on cement-mixing machines,

Container (Tin) .- Aransas Foundry, Machine & Boiler Works, Aransas Pass, Tex. Names and addresses manufacturers of small container made of light tin, about 2%-in. diam, and 2%-in, high; prefer firms in Kansas City or Chicago.

Containers .- K. B. Nixon, Prest. Champion Tire Patch Co., Lincolnton, N. C .- Prices on pasteboard cartons and cans for shipping.

Cottonseed-oil Mill Machinery.-Covington Cotton Oil Co., P. G. Walker, Secy.-Treas., Covington, Ga.-Bids until May 1 for cottonseed-oil mill machinery.

Crane (Locomotive) .- D. C. Elphinstone, 408 Continental Bldg., Baltimore, Md.-20 or 25-ton locomotive crane with 60-in, boiler; Ohio, McMyler or Industrial preferred.

Desks.-Bonner Frizzell, Supt. of Schools, Palestine, Tex .- Prices on 500 desks.

Dies .- Phil H. Cammer, Prest., Universal Service Station, Inc., Front Royal, Va.—Addresses of mfrs. of dies for casting battery parts.

Disk Blades .- Geo. W. Gray, Woodford, -Names and addresses mfrs. of disk blades for disk harrows.

Drainage System. - Harris County Commissioners, Drainage District No. 8, Houston, Tex .- Bids until Apr. 25 to construct drainage system, 700,000 cu. yds. excavation; plans with J. M. Howe, 212 First National Bank Bldg

Drilling Machinery, etc.-Oil & Gas Production Co., 10 Wall St., New York, N. Y .-Bids opened for drilling, pumping and other machinery.

Drill Press .- J. O. Ashworth, Supt. Planters' Oil Mill & Gin Co., Kosciusko, Miss.-20 to 24-in, power-feed drill press.

Electrical Supplies .- L. M. Autrey, P. O. Box 959, Orlando, Fla.-Prices on electrical supplies for \$40,000 residence.

Elevator.-Levenson & Rosenberg, Proprs. The Bazaar, El Paso, Tex. Prices on hydraulic sidewalk lift and hydraulic freight elevator for 3-story building.

Engravings, etc. - K. B. Nixon, Prest. Champion Tire Patch Co., Lincolnton, N. C .-Prices on printing and engraving.

Fan (Rotary) .- M. B. Parker, Chattanooga, Tenn,—Data and prices on rotary fan or blower to deliver continuously up to 6000 cu. ft. of air per minute and up to 8 lbs. pressure per sq. in.

Furniture.-Smith Hood, Fairmont, W. Va -- Prices on church furniture.

Gasoline Locomotives .- Interstate Brick & Tile Corp., Egg Harbor City, N. J .- Two 24in, gauge gasoline locomotives in good condition; state price and location.

Generators .- G. M. Thomas, Marianna, Fla., and Albany Electro Co., Albany, Ga.-Prices on generators.

Heating Plant.-Frank Lockwood, Montgomery, Ala.-Prices on steam-heating plant

for dwelling at Troy, Ala.; 46x62 ft. Holst .- J. S. Downing, 11 York Court, Bal-

timore, Md .- Prices on light hoist.

Hose (Rubber).-Mississippi River Comsn., First and Second Dists. Custom-house, Mem-Tenn .- Bids until May 16 to furnish phis. and deliver rubber hose; information on application.

Hose (Flexible Metallic).-L. Van Middlesworth, Mgr. Purchasing Dept., Division of Supply and Sales, Room 353, 1317 F St. N. Washington, D. C .- Bids until May 2 to furnish flexible metallic hose in quantities as required for 4 months from May 25; for use on ships operated by United States Shipping Board Emergency Fleet Corp.

Ice-cream Machinery.—Rogersville Ice Co., Rogersville, Tenn. — Names and addresses manufacturers of ice-cream machinery.

Imitation Pearls. - Francisco del Llano, Apartado No. 898, Mexico, D. F. Mexico.—To represent mfrs. of good quality imitation pearls.

Industrial Instruments.-Aiken R. Carlisle,

Engr., Spartanburg, S. C .- To correspond with manufacturers of industrial instruments, such as steam, water or any liquid, float or pressure gauges, clock operated. making chart records, using 2 or more pen arms.

Iron Castings .- Condon Baking Co., 219 St. Philip St., Charleston, S. C .- Data and prices on malleable iron castings, etc., for manufacture of wagon bodies.

Labeling Machines, etc. - K. B. Nixon, Prest. Champion Tire Patch Co., Lincolnton, N. C .- Prices on paste and labeling machines.

Lathé.-J. O. Ashworth, Supt. Planters' Oil Mill & Gin Co., Kosciusko, Miss. - 18-in. swing engine lathe.

Lathe.-Wright Machine Co., 325 E. 2d St., Owensboro, Ky .- 24-in, heavy-duty lathe, 14ft. bed, quick-changing gears; Leblond type preferred.

Lathe (Engine).—Saml, T. Williams, 223 N. Calvert St., Baltimore, Md.—Heavy engine lathe to swing about 18 to 20-in, overbed and take 6 to 8-ft, between centers; all change gears complete; also suitable chuck with lathe; prefer Lodge & Shipley, American Tool Co. or other equal make.

Lift .- See Elevator.

Lockers.-Bonner Frizzell, Supt. of Schools, Palestine, Tex.-Prices on 150 steel lockers.

Manila Rope.-Mississippi River Comsn., and Second Dists., Custom-house, Memphis, Tenn.-Bids until Apr. 30 to furnish and deliver 30,000 lbs. manila rope; information on application.

Mica-mining Machinery.-H. L. Clapham, Agt. Alabama Mica & Mfg. Co., 110 E. Lexington St., Baltimore, Md.-Catalogs on micamining machinery; grinding and cutting.

Millwork.-L. M. Autrey, P. O. Box 959, Orlando, Fla.-Prices on millwork for \$40,000 residence.

Miscellaneous Electrical Equipment .-Thomas, Marianna, Fla., and Albany Electro Co., Albany, Ga.-Prices on miscellaneous electrical equipment.

Miscellaneous Supplies .- Navy Dept., Bureau of Supplies and Accounts, Washington. D. C .- Bids until Apr. 19 to deliver copper wire, dry cell batteries, hose, brass tubing. and install pigeon holes, drawers and lockers at navy-yard; plans on file.

Miscellaneous Supplies .- Panama Canal, A. L. Flint, Gen. Purchasing Officer, Washington, D. C .- Bids until Apr. 23 to furnish: Insulators, segments, bolts, screws, rivets, couplings, hinges, shell valves, sockets, signals, flags, belting, hooks, pots, porthole glasses, handles, nets, trays, pans, knives, lamp chimneys, tracing cloth, pens and chloride of lime. Blank forms and information (Circular 2267) on application to offices of: Panama Canal; Asst. Purchasing Agents at Fort Mason, San Francisco.

Mixer .- J. S. Downing, 11 York Court, Baltimore, Md.-Prices on small mixer.

Motors .- S. L. Williams, Box 962, Charlotte, N. C .- Motors.

Mowers (Lawn). - George B. Todd, 421 Union St., Norfolk, Va.-To correspond with manufacturers of lawn mowers operated by storage batteries.

Office Fixtures, etc.-Hillsborough County Commrs., C. T. Friend, Chrmn., Tampa, Fla. Bids until May 6 to install fixtures and filing cases in office of Clerk of Circuit Court; plans on file.

Office Supplies .- J. P. Hall, Mgr. Western Union Telegraph Co., Sanford, Fla.-Names and addresses manufacturers of office supplies, including wire baskets, etc.

Painting .- Board of Awards, William F.

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Broening, Prest., Baltimore, Md.-Will receive bids in duplicate until Apr. 27 at office of Richard Gwinn, City Register, City Hall, for interior painting or wood and brick-work, columns, gutters, spouts, roofs and interior woodwork at Broadway Market; drawings and specifications at office of J. F. Crowther, Inspector of Buildings, City Hall.

Paving .- City, J. W. Ring, Mayor, Elkins, N. C.-Bids on \$100,000 paving; cement; H. T. Brown, Engr.

Paving.-City, S. P. Alles, Mayor, Cushing, Okla.—Bids until May 1 for paving 20,000 sq. yds. streets; \$80,000 available; Clarence A. Wood, Engr., Stillwater, Okla.

Paving.—City, Allen J. Saville, Director Public Works, Richmond, Va.—Bids until Apr. 26 to pave streets with sheet asphalt, asphaltic concrete, bitulithic, willite process, vitrified brick, durax block and granite spalls; \$250,000.

Paving. — City, H. R. F. Helland, City Engr., Waxahachie, Tex.—Will invite bids on 23,090 sq. yds. pavement; bitulithic, rock asphalt, asphaltic concrete or vertical fiber brick: 15.875 lin. ft. combined curb and

Paving .- City, L. L. Woollen, Chrmn, Commissioners' Improvement Dists, 6 to 15, Cleveland, Tenn,-Bids until May 5 to construct 56,610 sq. yds. paving, 23,895 lin. ft. curbing, 6990 sq. yds. sidewalk, storm sewers, etc.; plans, etc., with S. D. Newton, Engr.

Paving.-City, R. M. Rogero, Clk., South Jacksonville, Fla.-Bids until May 17 to construct 35,000 sq. yds. asphalt block or brick paving; 36,000 lin. ft. concrete curb and gutter or granite curb; plans, etc., on file with City Clk. and City Engr.

Paving.-City, W. A. Smith, Clk., Montgomery, Ala.-Bids until Apr. 21 to construct 18,500 sq. yds. paving; Portland cement, concrete, brick, sheet asphalt, asphaltic concrete or bitulithic; specifications from Robt. L. Totten, Conslt. Engr., Birmingham, Ala

Paving.—City, J. L. Ficklen, City Clk., Newport News, Va.—Bids until May 2 to con-struct 3400 lin, ft. concrete curb and gutter on 26th St., 1300 lin. ft. concrete curb and gutter on 35th St., 1997 sq. yds. concrete on 35th St., 1527 sq. yds. concrete on 42d St., 1527 sq. yds. bituminous macadam on 34th St., 1527 sq. yds. bituminous macadam on 27th St.; specifications with Director Public

Paving. — City, Fred, Stephenson, City Recorder, Athens, Tenn.—Bids until May 2 to construct 22,365 sq. yds. paving in Dists. 1, 2, 3 and 4; plans, etc., on file.

Paving.—City, Bonner H. Hill, City Mgr., Charleston, W. Va.—Bids until Apr. 16 to pave Virginia St.; 5800 sq. yds.; Ernest Bruce, City Engr.

Paving. — City, W. C. Goble, City Clk., Prestonsburg, Ky.—Bids until Apr. 15 to pave streets and construct sewers.

Paving.-City, J. F. Ewell, City Mgr., Duncan, Okla.-Bids until Apr. 19 on 100 blocks paving in Districts 2 to 7; 130,000 sq. yds. asphaltic concrete; \$850,000; plans, etc., with City Clk. and Benham & Mullergren, Conslt. Engrs., Firestone Bldg., Kansas City, Mo.

Paving Equipment.—R. M. Walker Co., 72 Marietta St., Atlanta, Ga.-Prices on rock, asphalt equipment.

Paving.-Board of Awards, care City Register, Baltimore, Md.—Bids until May 4 to grade, curb and pave streets listed in Contract 182-OC; 33,650 sq. yds. sheet asphalt; 2650 sq. yds. vitrified brick; 4650 sq. yds. granite block redressed; specifications, etc., with Paving Comsn., 214 E. Lexington St.

Paving Materials.-R. M. Walker Co., 72 Marietta St., Atlanta, Ga.-Prices on paving materials, including sand, slag and stone,

Pipe.—Davidson County Purchasing Committee, Nashville, Tenn.—Bids until Apr. 20 for various sizes of corrugated pipe; information on application.

Pipe. — L. M. Rogers, Rogerdale Farm, Ridgeville, S. C.—1000 ft. %-in, black pipe; state prices, etc.

Pipe Cutting and Threading Machine.— Wright Machine Co., 325 E. 2d St., Owensboro, Ky .- 11/2 to 6-in. Landis pipe cutting and threading machine.

Pipe Line .- O-Hitch Oil Co., F. S. Hutch, 308 First and City Bank, Lexington, Ky .-Bids until May 15 to construct 4000 ft. 2-in. pipe line and for drilling and pumping mathinery, etc.; W. L. Craft, Engr., 308 First and City Bank.

Pipe Organ.-Smith Hood, Fairmont, W. Va.-Prices on pipe organ for \$100,000 church.

Pipe With Couplings.—John G. Duncan Co., 101 E. Jackson St., Knoxville, Tenn.— Jobbers' prices on 1800 ft. spiral-riveted pipe with couplings, either black or galvanized; second-hand; immediate delivery.

Plaster Board.-Jas. W. Walker, Reidsville, N. C .- Prices on plaster board. (See Building Material.)

Plumbing.-L. M. Autrey, P. O. Box 959, Orlando, Fla.-Prices on plumbing for \$40,000

Printing Equipment, etc.—C. W. Arlitt, 830 Littlefield Bldg., Austin, Tex. — Prices on printing presses and printing equipment.

Pump. - Dungannon Motor Co., O. E. Bevins, Mgr., Dungannon, Va.-Bids May 1 on pump for oil-storage tanks.

Rails.-Cavanal Coal Co., Suite 436, Ridge Bldg., Kansas City, Mo.-Prices on used rails, delivery about June 1.

Refrigerating Plant. - North Carolina School for Deaf, E. McK. Goodwin, Supt., Morganton, N. C .- Prices on 6-ton refrigerating plant.

Road Construction .- Hunt County, John L E. English, County Auditor, Greenville, Tex .- Bids until Apr. 27 to improve 8.71 mi. Greenville-Sulphur Springs road; State Highway No. 11; plans, etc., with A. D. Duck, County Engr., Commercial Bank Bldg., Greenville, and State Highway Dept., Austin, Tex.

Road Construction. - Washington County, J. H. Chappell, County Judge, Brenham, Tex. Bids about May 15 to construct 33 mi. Federal-aid Project 236; \$1,500,000 available; G. A. Bracher, Engr.

Road Construction. - McCullough County. Evans J. Adkins, County Judge, Brady, Tex. -Bids until Apr. 27 to construct 1.5 mi. Mason road, State Highway No. 9, gravel surfaced; E. A. Burrow, County Engr.

Road Construction .- Osceola County, J. L. Overstreef, Clk., County Commrs., Kissimmee, Fla.—Bids until Apr. 23 to construct road and bridges across Jane Green Swamp; plans, etc. on file.

Road Construction .- Osceola County, J. L. Overstreet, Clk. County Commrs., Klasimmee, Fla.—Bids until May 7 to construct 6 mi, hard-surface road in Special Road and Bridge Dist. No. 4; plans, etc. on file.

Road Construction .- State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids un-til Apr. 26 to construct 2 mi. State highway from end of contract 490 along North Point road toward Eastern Ave.; concrete; Baltimore County, Contract B-43; plans, etc., on

Road Construction .- Dillon County Commissioners, Dillon, S. C.—Bids until Apr. 20 to construct 19.767 mi. Marion-Dillon-Bennettsville road; Sections A, B and C; Federal-aid Project 50; plans, etc., on file at Dillon and with State Highway Engr., Columbia, S. C.

Road Construction. - Jefferson County Board of Revenue, Birmingham, Ala.-Bids until May 3 to grade and surface 1/2 mi. Flat Creek road to county line; 4 mi. Flat Creek road to Praco; 2 mi. Green Springs road to Montgomery Highway; plans, etc., with C. J. Rogers, County Highway Engr.

Road Construction .- State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.-Bids un-til Apr. 26 to construct 2.86 mi. State highway from State road at Gaithersburg to Laytonsville road; concrete; Montgomery County, Contract M-24; plans, etc., on file.

Road Construction .- State Highway Dept .. Jefferson City, Mo.—Bids until Apr. 25 to construct 11.93 mi. Federal Aid Project 6, Section B.; bituminous macadam; \$304,875.37; 10.6 mi. Federal Aid Project 99; \$51,550.48; both Clay County; plans, etc. with County Clk., Liberty; A. C. Singley, Div. Engr., St. Joseph, Mo., and State Highway Dept., Jefferson City.

Road Construction .- State Highway Dept., Jefferson City, Mo.—Bids until Apr. 26 to construct 1.04 mi. State road from Grant City; State-aid Project S-20.20; \$26,096.50; plans, etc., with County Clk., Grant City; A. C. Singley, Div. Engr., St. Joseph, Mo., and State Highway Dept., Jefferson City, Mo.

Road Construction .- State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.-Bids until Apr. 26 to construct 5 mi. State highway from end Contract F-7B extended at Bartonsville road along Frederick pike to New Market: concrete shoulders: Frederick County, Contract F-7C; plans, etc., on file.

Road Construction.—Virginia State High-way Comsn., 116 S. 3d St., Richmond, Va.— Bids until May 3 to construct 3.67 mi. soil road and 1.05 mi. bituminous macadam road on State Road No. 2, Fluvanna County; Virginia Project No. 89; plans, etc., on file at Richmond.

Road Construction .- Virginia State Highay Comsn., 116 S. 3d St., Richmond, Va .-Bids until May 3 to construct 3.17 mi. concrete and bituminous concrete road on State Road No. 9; Virginia Projects S-93, 117-A and 117-B; plans, etc., on file.

Road Construction .- Virginia State Highway Comsn., 116 S. 3d St., Richmond, Va .-Bids until May 3 to construct 9.04 mi. waterbound macadam road on State Road o. 10, Wythe County; Virginia Project No. 100; plans, etc., on file at Richmond and with Res. Engr., Bristol, Va.

Road Construction.—Virginia State Highway Comsn., 116 S. 3d St., Richmond, Va.— Bids until May 3 to construct 5 mi. waterbound macadam road on State Road No. 16. Lee County; Virginia Project No. 60; plans, etc., on file at Richmond and with Res. Engr., Bristol, Va.

Road Construction .- State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.-Bids until Apr. 26 to construct .57 mi. State highway along Liberty Heights Ave. from end of Contract BC-13 to Hamilton Ave.; sheet asphalt on concrete base; Baltimore City, Contract BC-33; plans, etc., on file.

Road Construction .- State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.-Bids until Apr. 26 to construct 2 mi. State highway from Sudlersville toward Barclay; concrete; Queen Anne's County, Contract Q-15; plans, etc., on file.

Road Construction. - Harrison County Court, Clair N. Parrish, Clk., Clarksburg, W.

In writing to parties mentioned in this department, it will be of adrantage to all concerned if the Manufacturers Record is mentioned.

Va.—Bids until May 12 to grade and place drainage structures on 6.5 mi. roads, Sections A to D; plans, etc., with County Road Engr.

Road Construction.—Ellis County, F. L. Wilson, County Judge, Waxahachie, Tex.—Bids until Apr. 22 to grade, drain and gravel-surface 8½ mi. Ennis-Waxahachie road; plans, etc., from G. G. Edwards, Engr., Ennis, Tex.

Road Construction.—Hinds County Supervisors, Jackson, Miss.—Bids until May 10 to improve 5.8 mi. State Trunk road between Jackson and Clinton; Federal-aid Project No. 115; 55,554 sq. yds. paving; plans, etc., with Chancery Clk., Jackson, and H. C. Dietzer, State Highway Engr., Jackson, Miss.

Road Construction.—Webb County, A. Winslow, County Judge, Laredo, Tex.—Bids until Apr. 30 to construct 35.4 mi. State Highway No. 2; surface with gravel; T. R. Spence, County Engr.

Road Construction.—Virginia State Highway Comsn., 116 S. 3d St., Richmond, Va.—Bids until May 3 to construct 7.48 mi. bituminous macadam road on State Road No. 6, Loudoun County: Virginia Project S-64; plans, etc., on file at Richmond and with Res. Engr., Manassas, Va.

Road Construction.—Highway Department, Board State Engrs., 332 Maison Blanche Annex, New Orleans, La.—Bids until May 10 to construct 14.52 mi. Jena-Alexandria highway, La Salle Parish; information on file.

Road Construction.—State Roads Comsn., 601 Garrett Bidg., Baltimore, Md.—Bids until Apr. 26 to construct 1 mi. State highway from end Contract P-16A toward Lanham; concrete; Prince George's County, Contract P-22; also 1 mi. State highway from end Contract P-17 along Central Ave, toward Halls Station; concrete; Prince George's County, Contract P-23; plans, etc., on file.

Road Construction.—State Roads Comsn., 601 Garrett Bidg., Baltimore, Md.—Bids until Apr. 26 to construct 3.72 mi. State highway from end Contract Wi-13 to beginning of Contract 522, near Royal Oak; concrete; Wicomico County, Contract WI-14; plans, etc., on file.

Road Construction. — Vermilion Parish Road District No. 1, N. T. Broussard in charge, Gueydan, La.—Bids until May 21 at Abbeville, La., on 26 mi. earth and 21 mi gravel surface road, etc.; \$350,000 available; T. H. Mandell, Engr., Lake Charles, La.

Road Paving.—Fayette County Court, Eli J. Taylor, Prest., Fayetteville, W. Va.—Bids until May 2 to pave 7 mi. road from Beckwith to Kanawha Falls; bituminous macadam; information from J. K. McGrath, Road Engr.

Rope-making Machinery.—Chesterfield Mfg. Co., Kinston, N. C.—Rope-making machinery.

Sash (Metal). — Townsend Sash, Door & Lumber Co., Lake Whales, Fla.—Second-hand metal sash for sash and door plant.

Seating.—Smith Hood, Fairmont, W. Va,—Prices on church pews.

Screen (Reinforced Iron).—Pinellas County Commrs., J. N. Brown, Clk., Clearwater, Fla. Bids until May 3 for reinforced iron screen, steel frame  $1\frac{1}{4}\times1\frac{1}{4}\times\frac{1}{8}$ -in., reinforced with  $1\times\frac{1}{6}$ -in. steel, riveted with countersunk heads, etc.

Screen (Vibrating).—Marlbrook Lime Co., First National Bank Bldg., Roanoke, Va.— Vibrating screen, capacity 15 tons per hour.

Screen Wire.—Jas. W. Walker, Reidsville, N. C.—Prices on galvanized screen wire. Sewers.—City of Prestonsburg, Ky., W. C. Goble, City Clk.—Bids until Apr. 15 to construct sewers.

Sewers.—City of Cleveland, Tenn., L. L. Woollen, Chrmn. Commrs. of Improvement Dists. Nos. 5 to 16.—Bids until May 5 to construct 7991 lin. ft. 12 to 36-in. storm sewers, 58 curb inlets and 11 manholes; plans, etc., from S. D. Newton, Engr.

Sewers.—City of Jacksonville, Fla., John S. Bond, Chrmn. City Comsn.—Bids until Apr. 29 to construct 380 ft. 21 to 24-in. terracotta pipe storm sewer and standard storm sewer manhole in Franklin St. from 11th to 12th Sts.; plans, etc., on file with City Engr., Main and Orange Sts.

Sewers and Drains.—City of Roanoke, Va., W. P. Hunter, City Mgr.—Bids until May 14 to construct drains and sewers; 850 lin. ft. concrete arch or box drain; 1550 lin. ft. 42 and 48-in. brick, concrete or segment block sewer; 1770 lin. ft. 24 and 36-in concrete or terra cotta pipe; 27,200 lin. ft. 6 to 12-in. terra cotta pipe; plans, etc. from City Engr.

Shades.—Bonner Frizzell, Supt. of Schools, Palestine, Tex.—Prices on 120 shades.

Shoes.—Carlo Collevati, Genova, Italy, via Fieschi N. 14-2.—To represent mfrs. of shoes.

Shovel.—D. C. Elphinstone, 408 Continental Bldg., Baltimore, Md.—Type "B" Erie shovel.

Shovel (Steam).—Interstate Brick & Tile Corp., Egg Harbor City, N. J.—Steam shovel, ½-yd. capacity.

Shuttle Blocks. — Thos. Hubbard, Mgr. Knox Hardwood & Mfg. Co., Barboursville, Ky.—Invites bids on dogwood and persimmon shuttle blocks.

Sprinkler Systems. — Carolina Machinery Co., Sumter, S. C.—Names and addresses manufacturers of automatic sprinkler systems.

Steel.—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids until Apr. 29 to deliver medals, bars, rings and steel to Navy-yard, Washington.

Steel Sash and Trim.—Jas. W. Walker, Reidsville, N. C.—Prices on steel sash and trim. (See Building Material.)

Storage Tank.—Chatham Light & Power Co., R. C. Hunt, Mgr., Chatham, Va.—10,-000 or 12,000-gal, oil storage tank.

Tank (Oil Storage). — Dungannon Motor Co., O. E. Bevins, Mgr., Dungannon, Va.— Bids May 1 on 12,000-gal. oil-storage tank.

Tank (Water Storage).—Maribrook Lime Co., First National Bank Bldg., Roanoke, Va.—5000-gal, capacity water-storage tank.

Tanning Leather Machinery. — Francisco de Llano, Apartado No. 898, Mexico, D. F. Mexico.—To represent mfrs. of machinery for tanning leather.

Tanning Mehy.—R. W. Koneschik, Box 348, Taylor, Tex.—Catalogs on tanning machinery.

Terra Cotta,—Smith Hood, Fairmont, W. Va.—Prices on terra cotta. (See Building Material.)

Textiles, etc.—Marine Corp., Quartermaster's Dept., Washington, D. C.—Bids until Apr. 27 to furnish 2000 dress caps, 60,000 pairs woolen socks, 100,000 yds. flannel shirting, 225,000 yds. chambray shirting, 200,000 yds. nainsook, 40,000 pairs russet shoes, 100,000 cotton undershirts; delivery to Depot Quartermaster, U. S. Marine Corp, 1100 S. Brond St., Philadelphia, Pa.; Sch. 405; blanks and information obtainable from Depot Quartermaster.

Tile.—Carl L. Gillis, Adrian, Ga.—Prices on tile. (See Building Material.)

Tile.—Jas. W. Walker, Reidsville, N. C.— Prices on interior tile. (See Building Material.)

Transmission Lines.—G. M. Thomas, Marianna, Fla., and Albany Electro Co., Albany, Ga.—Prices on transmission lines.

Tractor.—A. H. Wearn, Commr. of Public Works, Charlotte, N. C.—Bids until Apr. 26; 18 H. P. motor-driven tractor, about 6000 lb. weight.

Ventilators.—Jas. W. Walker, Reidsville, N. C.—Prices on ventilators.

Water Mains.—Second Dist. Chief, Construction Service, Quartermaster Corps, Fort Sam Houston, Tex.—Bids until May 10 to install 6-mi. cast-iron water mains and accessories at Kelly Field, Tex.; plans, etc. on file.

Water-wheel.—V. S. Cherry, Opelika, Ala.—Water-wheel to run small generator.

Water-wheels.—G. M. Thomas, Marianna, Fla., and Albany Electro Co., Albany, Ga.—Prices on water-wheels.

Woodworking Machinery.—S. L. Williams, Box 962, Charlotte, N. C.—Prices on woodworking machinery, including jointers, moulders, planers, mortising machine, sanders, belting, etc.

Woodworking Machinery,—Thos. Hubbard, Mgr. Knox Hardwood & Mfg. Co., Barboursville, Ky.—Shuttle block and handle mchy.

Water-works. — Board of Public Works, Denmark, S. C.—Bids until June 1 to construct 100,000-gal. capacity concrete reservoir; plans, etc., from Ryan Engineering Co., Engr., Columbia, S. C.

Wire Strand, etc.—Mississippi River Commission, First and Second Dists., Customhouse, Memphis, Tenn.—Bids until May 16 to furnish and deliver 265,000 lbs. galvanized wire and wire strand; information on application.

Wrenches, etc.—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids until May 3 to deliver wrenches, die holders, nozzle clearance tool, thermometers and aircraft receivers to Navy-yard, Washington.

## Railroad Construction

### Railways.

N. C.. Raleigh.—Contract reported let to Vaughan Construction Co. of Roanoke, Va., to revise grades on three sections of Norfolk Southern R. R. between Raleigh and Charlotte, N. C. F. L. Nicholson, Norfolk, Va., is Ch. Engr.

Okla., Duncan.—W. E. Hawley, Prest. and Gen. Mgr. Duncan, Oklahoma & Texas Railway Co., recently chartered to build a line from Oklahoma City to Wichita Falls, Tex., about 150 mi. informs the Manufacturers Record that date for opening construction bids is not yet decided; company now covering preliminary surveys; route lies through rolling country; other directors are M. C. Houston, V.-P.; W. E. Reybolds, Secy. and Treas.; W. L. Brittain and Harry A. Beker, all of Duncan.

Tex., Fort Worth.—Texas & Pacific Ry. Co. has bought three acres of land west of the city for part of its proposed new yard, estimated cost of which will be from \$2,000,000 to \$5,000,000. E. F. Mitchell. Dallas, Tex., is Ch. Engr.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Sale of Important Cotton Mill, Etc.

An important receivers' sale will take place at Acworth, Ga., according to a formal announcement in another column, which says that sealed bids will be received until 12 o'clock noon on May 7 for the property of the Acworth Cotton Manufacturing Co., including a mill building of brick, 241 by 80 feet; a power plant, a cotton warehouse and a mill village of 18 tenant-houses, besides all of the equipment of the cotton-manufactur-ing plant, comprising machinery, engine, sprinkler system, and also 31 acres of land. Further particulars will be found in the official announcement. Orlando Awtrey is the receiver.

### Representatives Appointed.

The Newman Manufacturing Co. of Cincinnati. Ohio, manufacturers of bronze grilles, doors, elevator cabs, brass railings, fixtures and ornamental work, have established representatives as follows: P. D. Clement & Co., 12½ S. Elm St., Greensboro, N. C., for the northern part of that State; H. W. Beecroft & Co., 2120 First Ave., Birmingham, Ala., for Alabama and Mississippi; R. C. Leib Company. 340 Whitehall St., Atlanta, for Georgia; A. W Pannell, 11 S. Second St., Memphis, Tenn., for that city; Warnecke & Platshon, 307 Davidson Bilds. Washington, D. C., for Virginia, Wash-ington, and Maryland; A. J. Negrotto, 2253 Brainard St., New Orleans, for Louisiana. The company has also just made arrangements for representation in Kentucky and also in the eastern half of Oklahoma, concerning which announcement will be made later.

### Goes Into Larger Quarters.

The Keller Pneumatic Tool Co., will remove its Chicago Branch on May 1 to a larger and more up-to-date salesrooms and service station on the main floor of the Transportation Building. 624 South Dearborn St., Chicago, where a complete stock of tools and parts will be maintained. J. C. Campbell is district manager.

### Desires to Hear From Architects.

T. E. Bartenstein, Clerk of the Fauquier Circuit Court, Warrenton, Va., desires to get in touch with two or three architects who will give him preliminary figures on plans and specifications for a new building which the county is preparing to erect for the accommodation of the Clerk and his assistants. Although construction is not to begin until next year, it is desired to have plans early.

### Electric Furnaces.

The Electric Furnace Co. of Alliance, Ohio, has just installed three Baily electric brass melting furnaces of different sizes and capacities, but built upon the same resistance principle, for the following industrial plants: Bagley & Sewall Company, Watertown, N. Y., a 50 K. W. furnace with 500 pounds hearth capacity: Alliance Brass & Bronze Co., Alliance, Ohio, a 75 K. W. furnace of 800 pounds capacity; Empire Brass Works, London, On-tarlo, Canada, a 165 K. W. furnace of 1500 pounds hearth capacity. Besides these, the Lorain Steel Co., Johnstown, Pa., is installing a 200 K. W. Baily electric furnace of the continuous pusher type, with motor-operated control mechanism. It can heat treat 14 tons of material a day and will operate on railroad ing to the application of pulverized coal to

bolts, etc. The company has issued a flue booklet reproducing photographs of various installations of its electric furnaces.

### Change of Business Connection.

J. E. Tracy, general sales manager of the Sterling Motor Truck Co. of Milwaukee, Wis., for the last four years, became actively connected on April 1 with the Hicks-Barrett Tractor Co. of Chicago Heights, Ill., as vicepresident and director of sales. Before his next previous business connection Mr. Tracy was with the Milwaukee Corrugating Co. for ten years in charge of sales. He also led in organizing the National Association of Motor Truck Sales Managers and was its first president.

### Creosoted Materials.

The Creosoted Materials Co., Inc., 301 Queen and Crescent Bldg., New Orleans, La., have taken over the sales of creosoted material for the Savannah Creosoting Co., a new concern which recently built a plant at Savannah, Ga. This will enable the Creosoted Materials Co. to take care of their large Eastern domestic business, and also assist them in handling a large export trade that they have built up in Mexico, Central America and South America during the last few

### Trade Literature.

### All About Tractors.

"Caterpillar Tractor Performance," a handsome book of 32 pages issued by the Holt Manufacturing Co., Peoria, Ill., and Stock-ton, Cal., abundantly illustrates the work done by their "Caterpillar" tractors in this country and also abroad during the war with Germany. The machines are displayed by excellent pictures as working under all kinds of conditions. Other bulletins and folders show these tractors in the oil fields, also as used for road construction, again as they are employed in agriculture, lumbering. etc., for transportation of various products, for moving dirt in connection with graders and scrapers, besides sundry additional work. House moving is another kind of operation for which the machines are used.

### Paraffine Wax Plant Equipment.

The Henry Vogt Machine Co., Inc., Louisville, Ky., has issued Bulletin R-E-2 concerning the Vogt paraffine wax plant equipment, which is employed in oil refineries making high-grade lubricating oils, for the elimination of paraffine wax from the wax distillate. The process of removing the pardistillate. The process of removing the paraffine is described, along with complete descriptions of the Vogt equipment used in the process, this including chilling and refrigerating machines and paraffine wax presses. The company also makes auto truck tanks, water-tube boilers, horizontal returnibles. tubular boilers, sectional steel boiler casings, oil stills, valves, fittings, grates, etc. The bulletin is finely illustrated throughout.

### Use of Pulverized Coal.

Two fine publications concerning the use of pulverized coal for fuel have been issued by the Fuller-Lehigh Company of Fullerton, Pa. One of them is Bulletin No. 600, pertain-

stationary boilers; the other is Catalog No. 700, which has just come off the press, and is entitled "Fuller Pulverized Coal Equipment for Locomotives." It is noted that a rapid growth in the use of pulverized coal in vari-ous lines of manufacture has attracted wide attention. This fuel has been employed for some years in operating many manufacturing industries, and the success obtained has been so marked that its further adoption is rapidly proceeding. It is asserted that nearly one-quarter of the amount of coal used under stationary boilers can be saved if it is pulverized and then properly fired. The two books present full particulars, with numerous illustrations, concerning its use in the best manner to secure the most efficient results.
Pulverized coal is used on locomotives both in this country and abroad. In stationary plants its value is well understood, but it is also finding a wide field of usefulness in metal working.

#### Pumps.

The Gaso Pump & Burner Manufacturing Co. of Tulsa, Okla., manufacturers of steam, power and vacuum pumps, have issued a new catalog of their products of interest to the trade, and it includes a line of highpressure pipe line fittings of a special character which they have recently added to their regular output. There are also in the book several pages of valuable general information.

### A Fine Engineering Catalog.

Catalog No. 58 of the Lunkenheimer Company, Cincinnati, O., manufacturers of en-gineering specialties, is a cloth-bound book of 572 pages, presenting complete informa-tion about the products of their widely known plant. The volume is finely printed on heavy paper, is illustrated in detail and carries the distinctive color of the Lunkenheimer books-red. Included in this publication are many engineering tables of value, in addition to the tabular data that relates only to the company's productions. It is a book that will be generally appreciated and preserved.

### Traffic Light.

The "Mushroom Traffic Light" (patent applied for) is described in detail as to construction and installation, accompanied by engineering data, in a fine folder issued by the Electrical & Specialty Supply Co., Madison Terminal Bldg., Chicago, Ill. There is a unit to be set in the center of street inter-sections and carrying under a substantial grating of mushroom design a lighting unit so that it can be seen as readily by night as There are several pictures showing the application of the device, which is said to be so substantial that it can sustain the weight of heavy trucks.

### Pumps, Condensers, Etc.

The Manistee Iron Works Co., mechanical and hydraulic engineers, Manistee, Mich., have issued Bulletin 101 concerning centrif-ugal pumps, rotary jet condensers and rotary jet vacuum pumps. Products typical of the company's output are clearly and finely illustrated, brief descriptions accompanying the pictures.

### Valuable to Building Owners.

The Hockaday Company of Chicago have issued an interesting booklet with the title, "The Maintenance of Buildings." It presents a deal of valuable information concerning various matters relating to the up-keep of walls, floors, etc., telling how to clean and preserve them, giving formulas of

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

sundry compounds for different purposes. The booklet also describes the features of Hockaday's wall finish "Interior" for all surfaces inside of buildings. It is further stated that the company has organized a department under the charge of an expert on wall finishing and building maintenance, who will give advice without charge.

### Interesting to Road Builders.

Bulletins 54 and 55 of the Lee Trailer & Body Co., 2343-2350 S. La Salle St., Chicago, Ill., set forth the experiences of eight road-building contractors. While the first is designed especially for Ford dealers and the second for dealers in heavier trucks, the messages they convey are information that will be appreciated by anyone connected with the laying of hard roads. The bulletins are finely printed and attractively and appropriately illustrated.

### A New Magazine.

A new monthly house magazine, "Light Touches," for April, issued by the Westinghouse Lamp Co., has made its appearance. Within its 16 pages the company deals with the activities of its "A" and "B" agents and its lighting, service and engineering work. It is technical to only a slight degree—one article an issue—and it replaces "Commercial Engineering News," which until March 1 was the semi-technical house magazine. Articles of interest to dealers and jobbers take up the remainder of the section that contains principal features.

### Switchboards for Merchant Ships.

A general idea of what has already been accomplished in the successful application of electricity to shipboard service is concisely described by the General Electric Co. in Bulletin No. 47030-A, superseding Bulletin No. 47030, entitled "Switchboards for Merchant Ships." The sectional type of panel switchboard has been developed and standardized for the control of marine engine generators rated up to 25 K. W., 125 volts and for distribution circuits for lighting and auxiliary service on merchant ships. It is designed for use with one or more directconnected marine engine sets. This is said to be a marked advantage, as it permits flexibility in providing for feeder circuit requirements, which vary to a certain extent in different ships. Furthermore, a complete switchboard can be made up of as many generators and feeder panels as desired to control as many generators and feeder cir-cuits in parallel as the installation may

### Glass Directory.

The Glass Factory Directory, 1921, compiled by the National Glass Budget, Pittsburgh, Pa., has been issued. It gives a list of factories in the United States and Canada, groupings being by States, and noting class, character of wares and capacity. The publication is issued in connection with the National Glass Budget and is sent to its subscribers by the Budget Publishing Co.

### Braided Cord.

Catalog No. 23-A of the Samson Cordage Works, Boston, Mass., says that solid braided cord is adapted to any use for which a smooth uniform cylindrical cord, which will resist abrasion, is required. The construction of this cord, it is further stated, is such that strain and wear are equally distributed over all the strands, and it is especially adapted for running over pulleys as when

used for window sash cords. For dumbwaiters, hand rails, lifelines, etc., the cord is made of rope sizes from 7/16-inch up to 1½-inch diameter. In other dimensions it is used for sash cord, signal cord, clotheslines and numerous other purposes. For special purposes it is made with a wire center.

### Asphalt Mixing Plants.

A new bulletin, No. 2-B, describing the several types of asphalt mixing plants known as "Iroquois" and produced by the Barber Asphalt Paving Co., Land Title Bldg., Philadelphia, Pa., has been issued by that organization. It has 20 pages and is handsomely printed and illustrated. Full particulars are given concerning the advantages and different uses of these plants, which are widely employed by contractors and others engaged in various kinds of asphalt work.

### High-Speed Steel.

The Vanadium-Alloys Steel Co., Latrobe, Pa., in its latest "Red Cut Superior" booklet of 68 pages, gives a complete account of high-speed steel, considering heat treatment, uses, etc., besides listing special sections, showing tables of weights and giving information concerning grinding high-speed steels. The booklet is well illustrated. A copy will be sent by the company to anyone interested on request.

### Plows, Harrows, Cultivators, Etc.

A fine catalog of 115 pages has been issued by the Southern Plow Co., Columbus, Ga., illustrating and describing their complete line of steel and cast turning plows, middle breakers, steel plow shapes, double shovels, cotton scrapers, cultivators, harrows, plow stocks, plant fenders, cotton planters, fertilizer distributors, singletrees, feed mills, cane mills, syrup evaporators, kettles, portable furnaces, hay presses, plow handles, beams, etc. The company's new plant, of which there is a full page picture, covers more than 12 acres. All machinery is electric drive power from the company's own generating plant. The factory is now three times its former size and is equipped with the most approved machinery and appliances. The book is printed in superior style and all of the pictures are distinct in detail.

### Oil Engines for Heavy Duty.

"Fulton Diesel Oil Engines" is the name of a new catalog issued by the Fulton Iron Works Co., St. Louis, Mo. It is a fine book of 31 pages, with both letterpress and illustrations done in a superior manner. There are many pictures showing different machines and parts thereof so that customers may fully understand them. Descriptions are also complete and precise. It is noted that this company has for 69 years designed, manufactured and installed high-class power equipment for heavy duty, thoroughly establishing its reputation for quality, efficiency and dependability. These engines are of the vertical type and full data concerning their installation and operation is presented.

### Self-Starting Automatic Motors.

The Triumph Electric Co., Cincinnati, O., has issued Bulletin No. 2008, containing descriptions and pictures of their "TR" self-starting automatic motors. Concerning them are these statements: "Will start heavy loads. Require no starter or other starting mechanism. Use any type of approved switch. Starting current automatically controlled, enabling inexperienced persons to

safely start 'TR' motors." Other impressive observations are also made. These motors are manufactured for current of 220, 440 and 550 volts, three-phase, 60 cycles. Horse-power capacities range from 7½ to 50, and shipping weight from 435 pounds to 3600 pounds.

#### OBITUARY.

### August D. Cook.

Cards have been issued announcing the death on March 28 at Lawrenceburg, Ind., of August D. Cook, president and founder of A. D. Cook (incorporated) of that city, manufacturers of deep-well pumps, etc.

### Book Reviews.

Commercial Engraving and Printing. By Charles W. Hackleman. Indianapolis: Commercial Engraving Publishing Co. 1921. \$15.

This splendidly prepared volume is a comprehensive and exhaustive treatise, which is appropriately described as "a manual of practical instruction and reference covering commercial illustrating and printing by all processes for advertising managers, printers, engravers, lithographers, paper men, photographers, commercial artists, salesmen, instructors, students, and all others interested in these allied trades." There are 790 pages, exclusive of the index. Everything used is thoroughly described and illustrated in detail-instruments, materials, etc., and the several processes are considered and discussed in a masterly manner. Illustrations are profusely distributed from cover to cover, many of them being in rich and harmonious hues. Besides considering printing. lithographing and engraving, the author also goes into particulars as to the manufacture of different kinds of paper, the art and practice of bookbinding, the manufacture of printing inks and the harmony of colors, the making of embossing, stamping and cutting dies, etc. Steelplate printing, photogravure and other styles of reproducing portraits are represented by specimens, as well as by descriptions. In fact, there is nothing that one should know to be completely posted concerning commercial engraving and printing that is not adequately treated. It will be a most welcome and valuable work for the information of every individual interested in those lines who desires to enlarge his knowledge about them. Altogether, 35 subjects are covered in the book, which is of a size suitable for the desk without being bulky, and it is bound in a most substantial but artistic manner.

The Capitalization of Good-will. By Kemper Simpson, Ph.D. Baltimore: The Johns Hopkins Press, 1921.

This volume, which is No. 1 of Series XXXIX of the Johns Hopkins University Studies in Historical and Political Science, is a careful consideration and description of a new type of industrial corporation which has become prominent during the last 10 years in the expansion of commerce and industry, and which is represented, for instance, in active form by business organizations engaged in mail-order trade upon a large scale, chains of 5 and 10-cent stores, automobile production, and also in more physically impressive forms by great steel manufacturing enterprises and several other lines of activity. "Most of them," remarks the author in the introduction, "were purely financial expedients, and as such were somewhat different from the corporations that had existed before.

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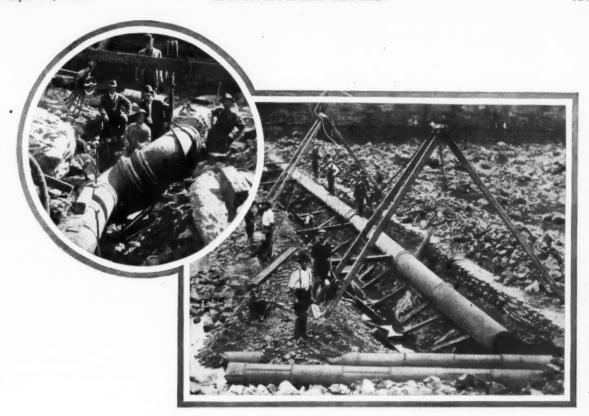
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CONOMY of time and money was effected in this difficult installation by using Cast Iron Pipe with bell and spigot joints. Perhaps there is little likelihood of your ever having to divert a river in order to lay a pipe line in the channel. However, the same considerations which resulted in Cast Iron Pipe being chosen for this line are of value to you on every job you install. Careful investigation showed that the standard bell and spigot joint was best under these exacting conditions, as it was easily and quickly laid and offered maximum flexibility in use. Owing to the cost of repairs, a permanent material was required. This requirement practically limited the selection to Cast Iron. The Engineer knew that for permanency and durability Cast Iron Pipe has no equal.

This may not be your piping problem, but whatever your difficulty you are safe in choosing Cast Iron Pipe. What other material can approach the record of over 250 years' service? The installation of Water Works in this country is of relatively recent date, and yet we find several cities boasting cast iron mains still in use at the end of a hundred years.

## UNITED STATES CAST PIPE FOUNDRY COMPANY

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The owner sold his business to a newly created corporation, which paid him an issue of 7 per cent preferred stock and an issue of common stock. The preferred stock was supposed to bear some definite relation to the tangible assets, and was usually covered by them. Behind the common stock something, known variously as 'good-will' or earning power, was supposed to stand. As a matter of fact, the common stock was justified solely by the knowledge that the business earned or was hoping to earn more than enough to pay the preferred dividends. \* \* \* The sale of these industrial common stocks, then, is the sale and capitalization of good-will." There are eight chapters and four appendices in the work, in the course of which development of the new type of stock flotation. the motives of owners and bankers, method of flotation and principles of capitalization are successively discussed, followed by considerations as to the success of the new industrial corporations and the social estimate of them. The book merits the careful attention of students of economics and also of business men interested in the progress of our great business enterprises.

## **Financial News**

### New Financial Corporations.

Fla., Miami Beach. — Miami Beach First National Bank, capital \$50,000, will organize.

Fla., Miami Beach. — Miami Beach Corp., capital \$120.000, will organize with Frank B. Shurts, Carl G. Fisher, E. C. Romfh.

Ky., Bowling Green. — American Mortgage Securities Corp., capital \$390,000, incptd. with R. B. Irvine, Theresa Fenwick, J. S. Taylor.

R. B. Irvine, Theresa Fenwick, J. S. Taylor.
 Miss., Boyle. — Bank of Commerce, capital
 \$15,000, incptd. with W. McD. Merritt, C. E.

Young, Ben Livingston.

Mo., Kansas City.—National Bank of Commerce and Commerce Trust Co. organized

merce and Commerce Trust Co. organized with capital and surplus of \$8,000,000. Mo., Rolla.—Rolla Savings and Loan Assn.,

capital \$300,000, organized with Edwin Long, Prest.; B. H. Rucker, V.-P.; M. O. Martin, Treas.

N. C., Charlotte.—Southern States Finance Co., capital \$2,000,000, incptd. with J. Robert Moog, A. M. Steinberg; both Charlotte; J. E. Ashcraft, Monroe, N. C.

N. C., Henderson.—Henderson Building and Loan Assn. organized with R. C. Gary, Prest.; J. T. Elmore, V.-P.; Al B. Webster, Secy.-Treas.

Tex., Galveston.—Guaranty Building & Loan Co., capital \$5,000,000 incptd. with Geo. F. Burgess.

Tex., Nocona.—People's National Bank, capital \$50,000, will organize.

Va., Troutdale.—First National Bank, capital \$25,000, will organize.

### New Securities.

Ala., Dothan—Water and Hydro-Electric.—Will receive bids until May 9 on \$750,600 of 6 per cent semi-annual \$1000 denomination 20-year water and hydro-electric bonds; R. W. Lisenby, City Cik. (Previously noted voting bonds.)

Ala., Livingston-Road.—Sumter County will receive bids until May 2 on \$55,000 of 5 per cent 30-year road bonds; E. F. Allison, Prest. Board of Revenue.

Ark., Fort Smith.—Sold \$200,000 water bonds to City National Bank; Arch Monro, Mayor.

Ark., Little Rock.—State will receive bids until May 9 on \$350,000 of 6 per cent semiannual 12½-year notes; Jra C. Hopper, State Seex.

Fla., Crestview—School.—Okaloosa County will receive bids until Apr. 23 on \$8000 of 6 per cent school bonds of Dist. No. 9. Address Board Public Instruction.

Fla., Dade City—Road.—Pasco County will receive bids until May 2 on \$750,000 road bonds. Address County Commrs.

Fla., Daytona Beach — Municipal Improvements.—Voted \$30,000 of 6 per cent 30-year municipal bonds; A. Milligan, Mayor. (Lately noted to vote.)

Fla., Kissimmee.—Osceola County will receive bids until May 7 on \$80,000 bonds of Special Road and Bridge Dist. No. 4; J. L. Overstreet, Clk. County Commrs.

Fla. Okeechobee—Sewer, Water and Street. Will receive bids until May 10 on \$30,000 of 7 per cent semi-annual \$500 denomination water and sewer time warrants, dated Apr. 1, 1921, and \$43,000 of 6 per cent semi-annual \$500 denomination street-paying time warrants, dated Apr. 1, 1921; W. W. Dunnieliff, City Clk.

Fla., Sebring—Street, Electric and Water.— Voted \$250,000 bonds. Address The Mayor.

Fla., Tampa—School.—Voted \$350,000 school bonds; J. E. Knight, County Supt. Public Instruction. (Lately noted to vote.)

Fla., Tavares—Road.—Lake County will vote May 10 on \$600,000 road bonds of Dists. 3, 4 and 5. Address County Commrs. (Lately noted.)

Ga., Marietta-Street.-Voted street bonds. Address The Mayor.

Ga., Valdosta — School. — Will receive bids until May 3 on \$150,000 of 5 per cent semiannual \$1000 denomination school bonds, dated Meb. 1, 1920; W. D. Peeples, Mayor.

Ky., Brooksville — School. — Voted \$17,500 school bonds. Address The Mayor.

La., Baton Rouge—Courthouse.—East Baton Rouge Parish issued \$450.000 courthouse bonds; Jos. Gebelin, Prest, Police Jury.

La., Lake Charles.—Lake Charles Drainage Dist. Commrs. voted \$150,000 drainage bonds.

La., Opelousas—School.—St. Landry Parish sold \$150,000 of 5 per cent Opelousas School Dist. No. 1 bonds to Harold G. Wise & Co., Houston, Tex.; W. B. Prescott. Supt. School Board. (Lately noted inviting bids.)

La., Opelousas—School.—St. Landry Parish sold \$40,000 of 5 per cent \$500 denomination school bonds of Coulee Croche School Dist. to Harold G. Wise & Co., Houston, Tex.; W. B. Prescott, Supt. School Board. (Lately noted inviting bids.)

La., Rayville—School.—Richland Parish sold \$150,000 of 5 per cent \$1000 denomination school bonds, dated June 1, 1923, to Sutherlin-Barry Co., Lafayette, La., at par and accrued interest; E. E. Keebler, Secy. School Board. (Lately noted inviting bids.)

La.. Springfield—Road,—Livingston Parish sold \$270,000 of 5 per cent \$1000 denomination road bonds to Brashears & Eager at par and accrued interest; Lewis F. Harus, Secy. (Lately noted.)

Md.. Rockville—Road.—Montgomery County will receive bids until Apr. 26 on \$35,000 of 5 per cent \$500 denomination road bonds, dated Apr. 1, 1921; Berry E. Clark, Clk. and Treas.

Miss., Belzoni—Water, Light and Municipal. Will vote in May on \$25,000 water and light and \$100,006 municipal improvement. Address The Mayor.

Miss., Charleston — Road. — Tallahatchie

County sold \$200,000 road bonds to Tallahatchie Home Bank.

Miss., Forest—Road.—Scott County will receive bids until May 4 on \$110.000 of 25-year road bonds of Dist. No. 1; B. R. Nichols, Clk.

Miss., Jackson.—Hinds County will receive bids until May 4 on \$600,000 of semi-annual \$500 denomination bonds, dated June 1, 1921; W. S. Wells, Clk. Board Supyrs.

Miss., Vicksburg—Road.—Warren County received bids on \$50,000 road bonds of Dist. 3; Alex. Fitzhugh, Chrmn. County Highway Commrs.

Mo., Cape Girardeau—School.—Sold \$54,000 of 5½ per cent \$1000 denomination school bonds, dated Apr. 1, 1921, to National Bank of Commerce, St. Louis, Mo., at 98.70. (Supersedes recent item.)

Mo., Delta — School. — Delta Consolidated School Dist. voted \$8000 school bonds. Address Board of Education.

Mo., Elsberry—School.—Voted \$45.000 school bonds. Address Board of Education.

Mo., Hayti — Water. — Will vote on \$30,000 water bonds: J. H. Wilks, Mayor.

Mo., Independence. — Jackson County sold \$500,000 of 6 per cent \$1000, \$5000 and \$10,000 denomination notes to Fidelity National Bank & Turst Co., Kansas City. Address County Commrs.

Mo., Neosho-Road.—Newton County sold \$22,000 of 6 per cent road bonds of Neosho Special Road Dist. to Whitaker & Co., St. Louis, at 96.50. Address County Commrs. (Lately noted voting.)

Mo., Princeton — Hospital. — Mercer County will receive bids until May 12 on \$35,000 of hospital bonds; Nelle Farris, Treas.

Mo., Sparta — School. — Voted \$12,500 school bonds. Address Board of Education.

N. C., Ahoskie-Water and Electric.-Will issue \$40,000 water and electric bonds. Address The Mayor.

N. C., Bryson City-School.-Will vote Apr. 19 on \$50,000 bonds. Address Board of Educa-

N. C., Brevard—School,—Transylvania County voted \$15,000 school bonds. Address Board of Education.

N. C., Chadbourn-Water and Street.-Voted water and street bonds. Address The Mayor.

N. C., Charlotte — School. — Mecklenburg County will vote May 21 on \$30,000 school bonds. Address Board of Education.

N. C., Elizabeth City-School.-Voted Apr. 8 on \$400,000 school bonds. Address The Mayor.

N. C., Four Oaks — School. — Voted \$75,000 school bonds. Address Board of Education.

N. C., Greenville—Road.—Pitt County sold \$500,000 of 6 per cent road bonds to Hornlower & Weeks and A. B. Leach & Co., both New York; W. W. Dawson, Chrnin, County Commrs. (Lately noted inviting bids.)

N. C., Greenville—Schools.—Will vote June 14 on \$200,000 school bonds. Address The Mayor.

N. C., Hamlet-School.-Will receive bids until Apr. 15 on \$10,000 school bonds. Address The Mayor.

N. C., Hendersonville—Road and Bridge.— Hendersonville County will receive bids until Apr. 25 on \$590.000 of 6 per cent semi-annual 15%-year road and bridge bonds; H. G. Edney, Register of Deeds.

N. C., Hickory—Street.—Sold \$175,000 of \$1000 denomination street Monds, dated Apr. 1. 1921, to First Security Trust Co., at par and accrued interest; R. G. Henry, City Clk.

N. C., Kenansville-Road and Bridge.-Duplin County will receive bids until May 9 on

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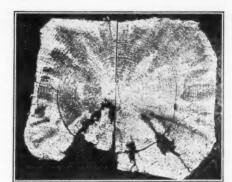
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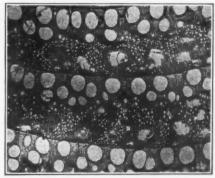
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What the eye can see of decay
Cross section of yellow pine tie rotted by Lenzites sepiaria,
a species of fungus quite common throughout the United States.
(Reproduced by permission of American Wood Preservers'
Association from their special publication, "Decay of Ties,"
by C. J. Humphrey, Pathologist, Bureau of Plant Industry—
U. S. Dept. of Agriculture.)



What the eye cannot see

Photomirrograph of the cross section of three annual rings of
chestnut greatly magnified. The small lighter areas, or spots,
are decay pockets. (Courtesy, Department of Wood Technotogy, New York State College of Forestry, Syracuse, New
York.)

# Wood Decay—A Self Imposed Tax

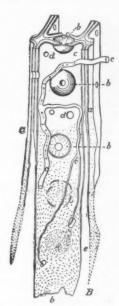
MOST repairs and replacements of structural timber are made necessary by wood decay. They are, to a large extent, a self imposed tax that could be saved by the simple expedient of wood preservation.

This applies to all timber placed in situations favorable to decay, where the mechanical life is greater than the natural life—to all unhoused structures, foundation timbers, wood exposed to humidity or in contact with the soil.

Carbosota Liquid Creosote Oil—the standard preservative for all non-pressure treatments—positively arrests the development of wood-destroying fungi. In proportion to the effectiveness of the treatment employed, it increases the durability of timber, equalizes the mechanical and natural life and reduces repair and replacement expense.

Non-pressure preservative treatment with Carbosota (applied by the Open Tank process, or Surface Treatments—dipping, spraying or brushing) should be every-day practice with all users of structural timber. It should be as common a custom as painting, for it is equally important. The result would be not only a substantial saving of money by the individual lumber user, but also an immediate, practical and powerful aid to the cause of timber conservation.

Further information regarding the use and benefits of Carbosota, and free technical assistance may be had by addressing our nearest office.



Fungus threads in tine woods. (Hartig.) a, cell wall of the wood fibers; b, bordered pits of these fibers; c, thread of mycelium of the fungus; d, holes in the cell walls made by the fungus threads, which gradually dissolve the walls as shown at e, and thus break down the wood structure.

Green wood cannot be effectively creosoted by non-pressure processes. It should be seasoned. All framing, drilling of bolt holes, etc., should be completed before treatment. If this is impossible, two brush coats of Carbosota should be applied to all untreated surfaces exposed by such subsequent cutting or drilling.



The Cincinnation Cincinnation Circuit Company

New York Cincinnation Circuit Cincinnation Cincinnation Circuit Cincinnation Circuit Cincinnation Circuit Cincinnation Circuit Cincinnation Circuit Cincinnation Circuit Circui

(Continued from Page 122.)

\$300,000 road and bridge bonds, dated May 1, 1921; 6 per cent semi-annual \$1000 denomination 19-year; Jas. J. Bowden, Clk. County Commrs.

- N. C., Lincolnton—School.—Will receive bids until May 9 on \$200,000 of 5 per cent semiannual \$1000 denomination Graded School Dist. bonds, dated May 1, 1921; I. R. Self, Chrmn. Board Trustees.
- N. C., Louisburg—Road.—Franklin County will receive bids until May 9 on \$10,003 of 3 per cent semi-annual 30-year road bonds of Cypress Creek Township, dated Dec. 1, 1920; A. E. Spivey, Secy. Road Comsn.
- N. C., Lumberton-School,—Will sell \$30,000 school bond. Address Dist. School Trustees. (Lately noted voting.)
- N. C., Marshall—School.—Madison County will vote May 7 on \$25,000 school bonds. Address Board of Education. (Lately noted.)
- N. C., Mebane—Street.—Will receive bids until Apr. 26 on \$155,000 street bonds; 6 per cent semi-annual \$1000 denomination, dated Apr. 1, 1921; W. S. Crawford, Mayor.
- N. C.. Morganton—School.—Sold \$75,000 of 6 per cent \$1000 denomination school bonds, dated May 15, 1921, to A. B. Leach & Co., New York; Jas. A. Claywell, Chrmn. School Trustees. (Lately noted inviting bids.)
- N. C., Newbern—School.—Sold \$159,000 of 6 per cent school bonds, dated Jan. 1, 1921, to Hanchett Bond Co., Chicago, III.; F. T. Patterson. City Cik. (Lately noted.)
- N. C., Rocky Mount—Gas.—Sold \$160,000 of 6 per cent semi-annual 15½-year gas bonds; C. H. Harris, City Clk. (Lately noted inviting blds.)
- N. C.. Salisbury—Street.—Will receive bids until Apr. 26 on \$485,000 of 6 per cent semiannual \$1000 denomination street bonds, dated May 1, 1921; W. T. Rainey, City Clk.
- N. C., Salisbury—School.—Will vote June 7 on \$500,000 school bonds, Address Mayor Strachan. (Lately noted incorrectly under Md., Salisbury.)
- N. C., Sanford-Street.-Will sell \$200,000 of 6 per cent. street bonds, Address The Mayor.
- N. C., Scotland Neck—Street.—Will receive bids until Apr. 28 on \$256,000 of 6 per cent street bonds; Henry T. Clark, City Clk.
- N. C., Smithfield-Road.-Johnston County will receive bids until Apr. 18 on \$40,000 road bonds of Wilder's Township; 6 per cent semiannual; D. B. Oliver, Chrmn. County Commrs.
- N. C., Washington—Street.—Will receive bids until May 16 on \$390,000 of 6 per cent semiannual \$1000 denomination street bonds, dated May 1, 1921; J. R. Meekins, City Clk. (Supersedes recent item.)
- N. C., Whiteville—School,—Columbus County may vote on \$75,000 school bonds. Address County Commrs.
- N. C., Wilson—School.—Sold \$10,000 of 6 per cent 18-yr. Statonsburg School Dist, bonds to Hanchett Bond Co., Chicago, III. Address Board of Education.
- N. C., Wilson—School.—Will receive bids until Apr. 16 on \$22,000 of 6 per cent semiannual bonds of Wilson Graded School Dist., dated Apr. 1, 1921; Charles L. Coon, Supt. Schools.
- Okla., Depew-Water.-Voted Apr. 7 on \$12.000 water bonds. Address The Mayor.
- Okla., Duncan-Water and Electric Light.— Will vote on \$500,000 water and electric bonds; J F. Ewell, City Mgr. (Supersedes recent item.)
- Okla., Durant—School.—Bryan County will vote on \$15,000 school bonds. Address Board of Education.

Okla., Fairfax—School.—Sold \$50,000 school bonds to R. J. Edwards, Oklahoma City, Okla.; C. P. Howell, Supt. Schools,

Okla., Okmulgee—Road.—Okmulgee County will receive bids until Apr. 18 on \$568,000 of 5 per cent semi-annual road bonds; Grace E. Morton, Clk.

Okla., Sallisaw-Bridge.-Sequoyah County will receive bids until May 1 on \$202.000 of 5 per cent 25-year bridge bonds; J. W. Rider, Commr. (Lately noted voting.)

- Okla., Sentinel-Water.-Will vote Apr. 15 on \$14,500 water bonds. Address The Mayor.
- on \$14,500 water bonds. Address The Mayor. S. C., Anderson-Refunding,—Voted \$200,000 refunding bonds. Address The Mayor.
- S. C., Bennettsville—Sewer and Water.— Voted \$50,000 sewer and water bonds; T. C. Crosland, Mayor.
- S. C., Chesterfield Water. Issued \$75,000 water bonds. Address The Mayor.
- S. C., Clover-School.-Sold \$40,000 of 6 per cent. school bonds to Bank of Clover. Address Board of Education. (Previously noted voting bonds.)
- S. C., Greenville—Hospital and Fire Department.—Sold \$120,000 hospital and fire department bonds to Mutual Life Insurance Co., Philadelphia. Address The Mayor. (Lately noted.)
- S. C., Hampton Refunding. Hampton County will vote May 3 on \$70,000 funding bonds. Address County Commrs.
- S. C., Laurens Road. Laurens County voted \$30,000 road bonds. Address County Commrs. (Lately noted to vote.)
- S. C., McCormick Building. Will receive bids until Apr. 19 on \$30,000 of 6 per cent building bonds, dated May 1, 1921; Dan B. Woodward, Clk. and Treas.
- S. C., Newberry—School,—Will receive bids until May 2 on \$60,000 of 5 per cent semiannual 20-year School Dist. bonds; J. Y. Mc-Fall, Secy. Board Trustees.
- S. C., Newberry-Road.—Newberry County will sell \$400,000 road bonds. Address County Comsn.

Tenn., Chattanooga—Refunding.—Sold \$200.000 of 30-yr, refunding bonds to B. J. Van Ingen & Co., New York. Address The Mayor. (Lately noted inviting bids.)

Tenn., Harriman—School and Funding.—Sold \$24,000 of 6 per cent \$1000 denomination school bonds and \$76,000 of 6 per cent \$1000 denomination funding bonds to First and Manufacturers Bank of Harriman; J. A. Gilbreath. City Cik.

Tenn., Jackson — Road. — Madison County may issue \$100,000 road bonds. Address County Commrs.

Tenn., Jefferson City—School.—Will receive bids Apr. 15, on \$30,000 of 6 per cent 30-year school bonds; T. M. Davis, City Recorder.

Tenn., Kingston—Refunding.—Roane County sold \$30,000 of 6 per cent 10-30-year refunding bonds to Caldwell & Co., Nashville, at par and accrued interest; D. H. Evans, Clk. (Lately noted inviting bids.)

Tenn., Memphis—Drainage.—Shelby County sold \$250,000 of 6 per cent \$1000 denomination Big Creek Dist. No. 6 bonds to Caldwell & Co., St. Louis, Mo.

Tenn., Murfreesboro.—Rutherford County will receive bids until May 17 on \$165,000 bonds; 6 per cent \$500 denomination 20-year, dated June 1, 1921. Address County Commrs.

Tex., Abilene — Water. — Attorney-General's Dept. approved \$450.000 water bonds. Address The Mayor.

Tex., Abilene—Street.—Attorney-General approved \$150,000 street bonds. Address The Mayor.

Tex., Bronte-Water.-Voted \$20,000 water crease capital to \$400,000.

bonds. Address The Mayor. (Lately noted to vote.)

Tex.. Crowell - Road. - Foard County will vote May 7 on \$100,000 road bonds; G. L. Burk, County Judge.

Tex., Dallas-Water.-Voted \$450,000 water bonds. Address Mayor Wozencraft. (Lately noted to vote.)

Tex., Denton—Park.—Voted \$75,000 of 6 per cent 1000 denomination 46-year park bonds; H. V. Hennen, Mayor. (Lately noted to vote.)

Tex., Edinburg—School.—State Comptroller registered \$40,000 of 5 per cent 10-40-year Edinburg Independent School Dist. bonds.

Tex., Grand Saline—School.—Grand Saline Independent School Dist. registered \$8000 of 5 per cent 10-20-year bonds with State Comptroller.

Tex., Harlingen — School. — Voted \$30,000 school bonds. Address Supt. Harlingen Independent School Dist. (Lately noted to vote.)

Tex., Haskell-Paving, Water, etc.-Will vote on \$50,000 bonds. Address The Mayor,

Tex., Hico — School. — State Comptroller registered \$50,000 of 5 per cent 20-40-year Hico Independent School Dist, bonds.

Tex., Highland Park (P. O. Dallas).—Voted \$16,000 of 6 per cent 30-year electric bonds; H. R. Davis, Mayor, (Lately noted to vote.)

Tex., Hillsboro—School.—Voted \$60,000 school bonds; J. W. Freeland, Mayor. (Lately noted to yote)

Tex., Lamesa—School.—Lamesa Independent School Dist. registered \$70,000 of 5 per cent 20-40-year bonds with State Comptroller.

Tex.. Liberty-Road.-Liberty County will vote Apr. 23 on \$300,000 road bonds of Dist. No. 6; S. H. Crin, County Judge.

Tex., Malakoff — School. — Malakoff Independent School Dist. registered \$8000 of 5 per cent 10-40-year school bonds with State Comptroller.

Tex., Martindale—School.—Martindale Independent School Dist. registered \$25,500 of 5 per cent 5-46-year bonds with State Comptroller.

Tex., Mason-Road.—Voted \$46,000 road bonds of Dists. 1 and 2; 5½ per cent \$500 denomination; John T. Banks, County Judge. (Lately noted to vote.)

Tex., Mission—School.—Mission Independent School Dist, registered \$40,000 of 5 per cent 10-40-year bonds with State Comptroller.

Tex., Pittsburg—Sewer and Water.—Voted \$10,000 sewer and \$6000 water bonds. Address Mayor Bass. (Lately noted to vote.)

Tex., Quanah—City Hall and Water.—Will vote Apr. 25 on \$40,000 city hall and \$100,000 water bonds. Address The Mayor. (Lately noted.)

Tex., Rising Star-Water and Sewer.-Will vote on \$100,000 water and sewer bonds. Address The Mayor.

Va., Stuart-Street.-Will vote Apr. 19 on \$20,000 street bonds; F. P. Burton, Mayor.

Va., Winchester-Water.-Will vote May 7 on \$300,000 water bonds. Address The Mayor.

W. Ya., Union—School.—Monroe County will vote Apr. 23 on \$20,000 bonds. Address Board of Education.

W. Va., Welch—School.—McDowell County will vote Apr. 22 on \$90,000 of \$1000 denomination school bonds of Northfork Dist., dated July 1, 1921; W. Paul Worley, Secy. (Supersedes recent item.)

### Financial Notes.

Liberty Trust Co., Roanoke, Va., will in-

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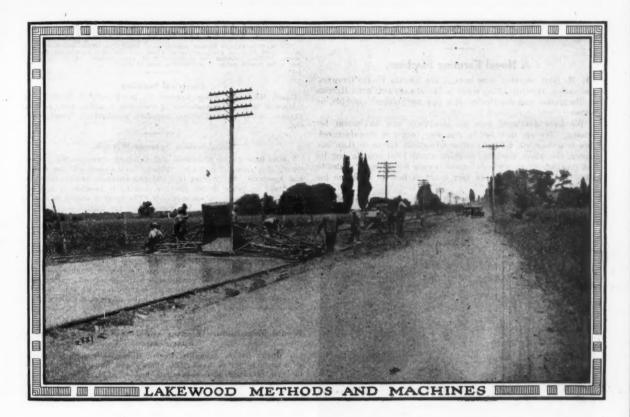
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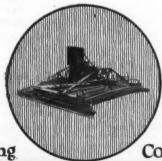
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## **MECHANICAL**

### A Novel Farming Machine.

R. M. Burt, secretary-treasurer of the Florida Potato Growers' Association, Hastings, Fla., sends to the MANUFACTURERS RECORD an illustration and description of a new agricultural machine, as follows:

"We have developed here an absolutely new implement for farming. We are now feeling our way to get it manufactured. This is a wheeled, rolling coulter adjustable for more than one coulter, the whole machine weighing about 1800 pounds, but its high crushing drums (wheels) make it easy for a pair of mules to pull. The machine puts the very roughest field in condition for



THE WHEELED COULTER AT WORK

the finest of plowing, regardless of velvet-bean tangle, very heavy hay or grass crops, sage grass, the worst of cornstalks or rough, new land full of roots. It slices the soil uniformly and completely, roots and all, and there is no clinging trash to follow a plow, but the sod turns slick and clean.

"For soil building with humus," continues Mr. Burt, "this machine has no equal, for no growth is too rank for it to put under clean and quickly. Furthermore, it leaves the field solid for tractors to follow with the plows and does not chop up and soften the field before plowing.

"Another astonishing discovery is that it does the work of mowing hay quicker and cleaner than a mowing machine, for, after dragging the hay field with a board to lay the hay, the coulter follows and cuts it off clean, and any vine hay is easy to gather. No unevenness of ground prevents this machine from cutting all the hay close to the surface. One has to see it work to appreciate it.

"We plan to get parts manufactured, as we figure on crecting an assembling plant in Palatka, Fla. One of our young farmers here, Louis K. Benedict, invented the machine, and has been using one for quite a while with wonderful results, which caused him to discard some of his other implements."

An illustrated folder issued by Mr. Benedict presents in detail the facts concerning his invention and the results to be obtained by its use. It is described as being for cutting heavy crops of velvet beans or crab grass for forage or green manuring. The pictures show the appearance of fields before and after cutting. The illustration herewith displays the machine packing the list after cutting and listing.

### General Merchandise.

A. D. Marques, Rue do Ouro 200, Lisbon, Portugal.—Products which interest us include toilet articles, soaps, perfumes, etc.; household wares, electrical supplies, cutlery and surgical instruments, stationery and office supplies, small hardware, motors, textile goods, sewing machines, machinery in general, rubber goods, notions, novelties, optical goods, etc.

## FOREIGN NEEDS

[The MANUFACTURERS RECORD receives many letters from abroad asking for information about American goods, and others, from men who wish to represent American houses. Without assuming any responsibility for these concerns, we publish a summary of the foreign letters of inquiry from week to week.]

### Electrical Supplies.

PABLO MERCADER, Plaza Lassepe, 17, 2a, Barcelona, Spain.—I am interested in the representation of electrical supplies, such as lamp fixtures, switches, fuses, circuit breakers, pushbuttons, transformers, etc.

### Combination Spanner-Wrench.

VISLOK-KOMPANIET, Stockholm and Goteborg, Sweden.—We are sole sellers of a patented lock nut, "Vislok," well known all over Europe and Australia. For locking this nut two spanners are required, but we desire to get a double spanner, making it possible to lock the Vislok nut by using one spanner only. The spanner should be equally a able for ordinary nuts. We would want the exclusive sale of the proposed double spanner.

### Imitation Pearls-Tanning Machinery.

Francisco del Llano, Apartado Na. 898, Mexico, D. F., Mexico.-I should like a list of manufacturers of good quality finitation pearls I do not want to purchase from commission merchants nor from dealers; I wish to make connections with the manufacturers themselves. Furthermore, I wish to make connections with manufacturers of machinery for tanning leather. I desire to represent some firm or else purchase direct for my own account.

## Would Manufacture Blouses and Underwear According to Specifications.

A. Grant & Co., Aguadilla, Puerto Rico.—We are in the market as manufacturers of hand-made blouses and underwear. We wish to come in touch with responsible firms that may be desirous of having their own styles of blouses and underwear manufactured by our Porto Rican girls. Also we have a well-organized department of agencies wherein we take care of all the agency propositions in line with our activities, say, general merchandise.

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# Invites Tenders on FLEXIBLE METALLIC HOSE

Sealed Bids Will Be Received Until May 2, 1921, 2.00 P. M.

and then will be opened and read publicly in the office of L. Van Middlesworth, Manager Purchasing Department, Division of Supply and Sales (Room 353). 1317 F Street N. W. Washington, D. C., for furnishing FLEXIBLE METALLIC HOSE in such quantities as may be required for a period of four (4) months from May 25, 1921, for use of all ships operated by or for the account of the United States Shipping Board Emergency Fleet Corporation at the following ports:

BOSTON NEW YORK PHILADELPHIA BALTIMORE NORFOLK SAVANNAH NEW ORLEANS SAN FRANCISCO PORTLAND SEATTLE

Proposal forms and other information may be obtained from Manager Purchasing Department, Division of Supply and Sales.

### The Board reserves the right to reject any and all bids

Sealed bids should be addressed to L. Van Middlesworth, Manager Purchasing Department, Division of Supply and Sales, 1317 F Street N. W., Washington, D. C., and endorsed:

Sealed Bids for Flexible Metallic Hose. Do Not Open Until May 2, 1921.

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They show us that we are not only accomplishing our work, but also building goodwill. The valuation mentioned above was made and the sale of the mill completed within a period of less than four weeks.

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# PROPOSALS

**BOND ISSUES** 

BUILDINGS

PAVING

**GOOD ROADS** 

Blds close April 30, 1921.

PROPOSALS FOR MANILA ROPE. Office PROPOSALS FOR MANILA ROPE. Office Mississippi River Commission, First and Second Districts, Custom-house, Memphis, Tenn. Sealed proposals will be received here until 11 A. M. April 30, 1921, and then opened, for furnishing and delivering 30,000 lbs. Manila Rope. Further information on application.

Bids close May 16, 1921.

Proposals for Rubber Hose. Office Proposals for Rubber Hose. Office Mississippi River Commission, First and Second Districts. Custom-house, Memphis. Tenn. Sealed proposals for furnishing and delivering Rubber Hose will be received here until 11 A. M. May 16, 1921, and then opened. Further information on application.

Bids close May 16, 1921.

Bids close May 16, 1921.

PROPOSALS FOR GALVANIZED WIRE PROPOSALS FOR GALVANIZED WIRE and Wire Strand. Office Mississippi River Commission, First and Second Districts, Custom-house, Memphis, Tenn. Sealed proposals for furnishing and delivering 265,000 pounds Galvanized Wire and Wire Strand will be received at this office until 11 A. M. May 16, 1921, and then opened. Further information on application.

Bids close April 30, 1921.

### \$125,000 6% Bonds

\$125,000 6% Bonds

Florence, S. C.

Notice is hereby given that until 3 o'clock P. M. on April 30, 1921, the City Council of the City of Florence will entertain and at the last mentioned time will open scaled bids for the purchase of one hundred and twenty-five thousand (\$125,000) dollars of bonds of said city, to be used for the purpose of paying off and liquidating all outstanding open indebtedness of said city, on March 31, 1921; said bonds to run for 30 years and to bear interest at 6 per cent. per annum, payable semi-annually. Each bid must be accompanied by a certified check in the sum of five hundred (\$500) dollars, payable to the order of the City of Florence, before it will be considered. The Council reserves the right to reject any or all of said bids.

CITY CUNCIL OF THE CITY OF FLORENCE.

By H. K. GILBERT.

E. J. PENDERGRASS,

J. L. WYSONG.

Bids close May 9, 1921.

### \$200,000 5% School Bonds

\$200,000 5% School Bonds

Lincolnton. N. C.

Sealed proposals will be received by the Chairman and members of the Board of Trustees of the Lincolnton Graded School District of the Town of Lincolnton Graded School District of the Town of Lincolnton. North Carolina, at the office of I. R. Self until May 9, 1921. at 8 o'clock P. M., when they will be publicly opened, for the nurchase of \$200.000 Lincolnton Graded School Bonds of said Town of Lincolnton, N. C., of the denomination of \$1000 each and dated as of May 1, 1921. The bonds will mature serially as follows: Five bonds on May 1 in each of the years 1926 to 1925, inclusive, and 10 bonds on May 1 in each of the years 1926 to 1925, inclusive, and 10 bonds on May 1 in each of the years 1926 to 1925, inclusive, and 10 bonds on May 1 in each of the years 1926 to 1925, inclusive, and 10 bonds on May 1 in each of the years 1926 to 1925, inclusive, and 10 bonds on May 1 in each of the years 1926 to 1925, inclusive, and 10 bonds on May 1 in each of the years 1926 to 1926, inclusive, principal and interest will be payable at such place as the purchaser and the Board of Trustees of the Lincolnton Graded School District may hereafter agree upon. The bonds will be coupon bonds.

The bonds will bear interest at the rate of 5 per centum per annum, payable semi-annually on November 1 and May 1 in each year. If no legally acceptable bid is submitted for bonds bearing interest at the rate of 5½ per centum per annum, bids for bonds bearing interest at the rate of 5 per centum per annum, bids for bonds bearing interest at the rate of 5 per centum per annum, bids for bonds bearing interest at the rate of 5 per centum per annum, bids for bonds bearing interest at the rate of 5 per centum per annum, bids for bonds bearing interest at the rate of 5 per centum per annum, bids for bonds bearing interest at the rate of 5 per centum per annum, based on the outside "Proposal for Bonds." And addressed to L. R. Self, Chairman Board of Trustees of the Lincolnton Graded School District. Bidd

ated bank or trust company, or a sum of money for or in an amount equal to 2 per centum of the face amount of bonds bid for, to secure the Board of Trustees of the Lincolnton Graded School District against any loss resulting from the failure of the bidder to comply with the terms of his bid. The purchaser must pay accrued interest from the date of the bonds to the date of delivery. The bonds cannot be sold at less than par and accrued interest. Purchaser to pay for lithographing and printing of bonds—likewise to furnish legal opinion. The bonds are to be issued under a special act which authorizes an unlimited tax to pay interest and principal of bonds at maturity.

The right is reserved to reject any and

right is reserved to reject any and

The right is reserved to reject all bids.
By order of the Board of Trustees of the Lincolnton Graded School District.
Dated this 5th day of April, 1921.
Chairman,
Board of Trustees of the Lincolnton Graded School District.

Bids close April 29, 1921.

### \$125,000 6% School Bonds

YORKVILLE SCHOOL DISTRICT

YORKVILLE SCHOOL DISTRICT.
York, S. C.

Sealed bids in duplicate will be received by the trustees of Yorkville School District No. 11, York, South Carolina. up to 11 o'clock A. M. April 29, 1821, and then publicly opened, for the purchase of all or any part of One Hundred and Twenty-five Thousand (\$125,000) Dollars of 20-year coupon bonds of said school district. Said bonds will be of the denomination of \$1000 cach, to be dated and paid for June 1, 1921, and will mature June 1, 1941. Said bonds will bear interest at 6 per cent, per annum, payable semi-annually on the first day of January and July, except the last, which will be on June 1, 1941—the first interest payment period to be January 1, 1922. Both principal and interest will be payable in lawful money of the United States of America at a bank in the City of New York to be agreed on.

Bids must be accompanied by certified check for \$2500 on some responsible bank as a guarantee of compliance with bid, same to be returned to unsuccessful bidders and to be forfeited to the School District by successful bidder in event of his failure to comply with bid. When bid complied with his check to be returned also. The right is reserved to reject any or all bids.

School District will furnish opinion as to legality by Thos. F. McDow and J. A. Marion. Esgas., York, South Carolina.

All bids should be directed to the undersigned, Geo. W. Williams, Secretary and Treasurer Yorkville School District No. 11, York, South Carolina, and checks accompanying same shall be payable to his order. Envelope to be plainly marked "Bid for School Bonds."

GEO. W. WILLIAMS, Secretary and Treasurer, York, S. C.

GEO. W. WILL, IAMS, Secretary and Treasurer, York, S. C.

Bids close May 9, 1921.

### \$750,000 6% Water Works-Hydro-Electric Bonds

Electric Bonds

The City of Dothan will receive sealed bids until 5 o'clock P. M. May 9, 1921, for the sale of \$750.000 bonds in denominations of \$1000 each, to bear interest at the rate of 6 percentum per annum, payable semi-annually on the first day of October and April of each year, and to become due and payable 20 years from the date of their issuance, to raise money and provide means for the purpose of providing and constructing a water-works plant to pump, provide and deliver water in and to the City of Dothan, for the uses of said city and the inhabitants thereof, and to generate and transmit electricity for such purposes at or near what is known as Chalker's Bluff, on he Choctawhatchee River, in Geneva County, Alabama.

A certified check of \$1000 will be required with each bid.

CITY OF DOTHAN.

R. W. LISENBY, City Clerk.

City Clerk.

Bids close May 3, 1921.

### \$150,000 5% School Bonds

Valdosta, Ga.

Valdosta, Ga.

Under and by virtue of a resolution passed by the Mayor and Council of the City of Valdosta, I, the undersigned Mayor of the City of Valdosta, I, the undersigned Mayor of the City of Valdosta, I, the undersigned Mayor of the City of Valdosta, Ga., offer for sale and will receive sealed bids addressed to me at Valdosta, Ga., up to May 3, 1921, for One Hurdred and Fifty (159) Coupon Bonds of \$1000 each, bearing interest at the rate of 5 per cent. per annum, payable semi-annually. These bonds were validated on January 19, 1929, and will bear date of March 1, 1920, The first five bonds, numbered consecutively, will mature March 1, 1921, and five bonds maturing on March 1 each year thereafter, the last of said bonds maturing 30 years from date of said bonds.

All bids must be accompanied by a certified check on a reputable bank for 1 per cent. of the amount of the bid, and said check to be returned promptly in the event said bid is not accepted. All bids to be opened in the presence of the Mayor and Council of the City of Valdosta in regular session at 3 o'clock P. M. on May 4, 1921. The Mayor and Council of the City of Valdosta in regular reserve the right to reject any and all bids. Bids will be received and considered for any part or all of said bonds. The successful bidder's check will be held as a forfeit in the event of failure to carry out agreement. and all checks will be made payable to the City of Valdosta.

These bonds are issued for school sites and building purposes, and are authorized upon an election held at the instance of the Mayor and Council of the City of Valdosta on December 17, 1919, as authorized by an Act of the Georgia Legislature, known as Act No. 320 of the 1919 Georgia Acts.

Dated at Valdosta, Ga., this the 12th day of April, 1921.

W. D. PEEPLES, Mayor City of Valdosta, Ga.

W. D. PEEPLES, Mayor City of Valdosta, Ga.

Bids close April 30, 1921.

## \$100,000 6% Waterworks and Sewer Bonds

Florence, S. C.

Florence, S. C.

Notice is hereby given that until 3 o'clock P. M. on April 30, 1921, the City Council of the City of Florence will entertain and at the last mentioned time will open sealed bids for the purchase of one hundred thousand (\$100,000) dollars of bonds of said city, to be used for the purpose of improving and extending the water-works and sewerage system of the City of Florence, pursuant to an election duly held in said city on March 31, 1921; said bonds to run for 30 years and to bear interest at 6 per cent. per anoum, payable semi-annually. Each bid must be accompanied by a certified check in the sum of five hundred (\$500) dollars, payable to the order of the City of Florence, before it will be considered. The CITY OF FLORENCE,

By H. K. GILBERT,

E. J. PENDERGRASS,

J. L. WYSONG.

Bids close May 9, 1921.

## \$25,000 Road Bonds

Warrenton, N. C., April 5, Notice is hereby given that the Board of County Commissioners of Warren County, N. C., offers for sale \$25,000 Fork Township Road Bonds, authorized by special election held on the 26th day of July, 1920, under Chapter 122, Public Laws of 1913, and amendments thereto.

held on the sour Chapter 122. Public Laws of 1913, and uncusts thereto.

These bonds to bear interest not exceeding 6 per cent., payable semi-annually at the Treasurer's office in Warrenton, N. C., and to be redeemed twenty years from date of issue. Scaled bids will be received for the purchase of the above bonds up until noor of May 9, 1921.

Bidders required to deposit certified check in the sum of five hundred dollars with bid as evidence of good faith. Check to be returned in case bid is rejected. Right reserved to reject any and all bids.

C. C. HUNTER, Chairman, Warrenton, N. C.

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ed check o be re\$275,000 Road Bonds

Bids close April 27, 1921.

WILKES COUNTY, NORTH CAROLINA.

\$275,000 Road Bonds

WILKES COUNTY, NORTH CAROLINA.

Wilkesboro, N. C.

Notice is hereby given that the County Commissioners of Wilkes County, North Carolina, will receive sealed bids or proposals for the sale of Two Hundred and Seventy-five Thousand (\$275,000) Dollars of Wilkes County 40-year road bonds. Said bids or proposals will be received by the undersigned, J. C. Wallace, Clerk of the Board of County Commissioners of Wilkes County, North Carolina, at his office in Wilkesboro, North Carolina, up to and including the hour of 2 o'clock P. M. Wednesday, April 27, 1921, at which hour the same will be opened and passed upon by the Board of Commissioners of Wilkes County, with the right reserved by said Board to reject any and all bids therefor. Said bonds will be dated April 27, 1921, and fall due and payable as follows: \$9000 to be payable on the 27th day of April, 1941, and \$14,000 on the 27th day of April of every year thereafter until paid in full. Provided, said bonds are sold as a whole of \$275,000.

Said bonds are to be coupon bonds in the denomination of \$1000 and bearing interest at the rate of not exceeding 5 per cent. per annum, payable semi-annually, principal and interest payable in New York Clity: bonds to be serial bonds and to be dated and payable as set forth in the foregoing paragraph.

Bids or proposals will be received by the said Clerk on above bonds in blocks of \$50,600 each and as a whole of \$275,000 at the following rates of interest: 5 per cent., 5½ per cent. and 6 per cent.; the interest rate shall be determined by the Board of County Commissioners.

Terms of sale: Cash on delivery of the bonds, all bids to be accompanied by a certified check for Five Thousand Dollars (\$5000), payable to the Board of County Commissioners of Wilkes County, North Carolina, and in case any bond company or individual shall file one or more bids based on the different interest rates mentioned above, they will not be required to furnish certified check for Five Thousand Dollars (\$5000) certified check have

Bids close May 3, 1921.

State Roads

Bids close May 3, 1921.

State Roads

OFFICE OF THE VIRGINIA STATE
HIGHWAY COMMISSION.
Richmond, Va., 116 S. 3d St..
April 14, 1921.

Bids will be received at the office of the Virginia State Highway Commission, 16 South 3d Street, Richmond, Va., until 12 O'clock noon Tuesday, May 3, 1921, for the construction of the following sections of State Roads:
Virginia Project No. 60, 5.00 miles of water-bound macadam road on State Road No. 10, west from Jonesville, in Lee County.
Also on Project 60 bids will be received for one steel and concrete bridge, 98 feet long, over Dry Creek, on State Road No. 10, Lee County.
Virginia Project No. 89, 3.67 miles of soil road and 1.05 miles of bituminous macadam road on State Road No. 2, north from Bremo, in Fluvanna County. Alternate bids considered for a soil road entire distance.
Virginia Project No. 8-64, 7.48 miles of bituminous macadam on State Road No. 5, between Zion Church and Fairfax County Hine, Loudoun County.
Virginia Project No. 100, 9.4 miles of water-bound macadam road on State Road No. 10, between Wytheville and Smyth County line, in Wythe County.
Virginia Project No. 117-A, 0.51 mile of concrete road on State Road No. 9, east of Town of Williamsburg, in James City County.
Virginia Project No. 8-93, 0.78 mile of bituminous concrete roadway on State Road No. 9, through the Town of Williamsburg, Virginia Project No. 117-B, 1.88 miles of concrete road on State Road No. 9, west of the Town of Williamsburg, in James City County.
These Projects, 117-A, 8-93 and 117-B, are contiguous to each other.

the Town of Williamsburg, in James County.

County.

These Projects, 117-A, S-93 and 117-B, are contiguous to each other.

Engineers will be at the following places to show contractors over the different projects as follows:

At Jonesville at 10 o'clock Tuesday, April 26, for Project 60.

At Bremo at 10 o'clock Tuesday, April 26, for Project 89.

At office of Resident Engineer, Manassas,

10 o'clock Wednesday, April 27, for Project No. S-64. At Wytheville at 10 A. M. Thursday, April 28, for Project 100. At Williamsburg at 10.30 A. M. Thursday, April 28, for Projects 117-A, S-93 and 117-B. A certified check to the amount of 5 per cent. of the total bid, made payable to the State Highway Commissioner, must accompany each bid.

Plans and specifications are on file at office of Virginia State Highway Commission, 116 South Third Street, Richmond, Va., and for Projects 60 and 100 at office of Resident Engineer's office, Manassas, Va. Plans for bridge on Project 60 can be secured from W. R. Hobart, 104 North 8th St., Richmond, Va., at cost of 63 cents and postage per set.

Plans for sections of State roads will be furnished prospective bidders on receipt of check for 55, payable to the Second Assistant Commissioner, \$2.50 of which will be returned when plans are returned in good condition within two weeks after bids are opened.

The State Highway Commissioner reserves the right to reject any or all bids.

G. P. COLEMAN,

State Highway Commissioner.

Bids close May 2, 1921.

Road Paving

Road Paving

Fayette County, Fayetteville, W. Va., April 4, 1921.

Sealed proposals will be received at the office of the Clerk of the County Court, Fayetteville, W. Va., until May 2, 1921, for paving with bituminous macadam (penetration) the county road from Beckwith to Kanawha Falls, approximately 7.0 miles. Grading and drainage practically complete. Bids must be submitted on the blank form contained in the book of specification, which, with other information, may be obtained upon application to J. K. McGrath, Road Engineer, Fayetteville, West Virginia.

A certified check for 5 per cent. of the proposal, made payable to the order of the Sheriff of Fayette County, shall be filed with the bid. The County Court reserves the right to reject any and all bids.

By order of the County Court of Fayette County, West Virginia.

J. K. McGrath, Road Engineer.

ELI J. TAYLOR, President.

THOS. BOONE.

Clerk.

Bids close April 19, 1921.

State Highways

State Highways

STATE OF MARYLAND.

STATE ROADS COMMISSION.

Sealed proposals for building five sections of State Highway as follows:

GARRETT COUNTY-CONTRACT No. G-18:
One section of State Highway from Friendsville toward Kaesis Mills for a distance of 2.0 miles. (Concrete.)

ALLEGANY COUNTY-CONTRACT No. 4.16: One section of State Highway from Barrelville to the Pennsylvania State Line, a distance of 1.1 miles. (Concrete.)

BALTIMORE COUNTY — CONTRACT No. B-41: One section of State Highway from north end of Park Heights Avenue south for a distance of 1.0 mile. (Concrete.)

PRINCE GEORGE'S COUNTY-CONTRACT No. P-24: One section of State Highway from end of Contract P-19 toward Sandy Spring, a distance of 1.0 mile. (Concrete.)

CHARLES COUNTY — CONTRACT No.

rrom end of Contract P-19 toward sandy Spring, a distance of 1.0 mile. (Concrete.)

CHARLES COUNTY — CONTRACT No. Ch-17: One section of State Highway from Allen Fresh to Newport, a distance of 2.0 miles. (Gravel.)

Will be received by the State Roads Commission at its offices, 601 Garrett Fuilding, Baltimore, Md., until 12 M. on the 19th day of April, 1921, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1, as hereafter no charges will be permitted. No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$509) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 4th day of April, 1921.

L. H. STEUART, Secretary.

L. H. STEUART, Secretary.

Bids close May 4, 1921.

Street Paving

OFFICE OF THE PAVING COMMISSION.

OFFICE OF THE PAVING COMMISSION.

Baltimore, Md.

Separate sealed proposals, executed in duplicate, addressed to the Board of Awards, care of the City Register, will be received by him in his office, in the City Hall, until 11 A. M. Wednesday, May 4, to grade, curb and pave with Sheet Asphalt on concrete base the streets listed in Contract No. 182-CC.

Sheet Asphalt, 33,650 sq. yds.
Vitrified Brick, 2650 sq. yds.
Granite Block Redressed, 4650 sq. yds.
Specifications and proposal sheets and all other information can be obtained at the office of the Paving Commission, 214 E. Lexington street. A deposit of \$5 will be required for specifications covering each contract. This will not be refunded unless a bid is filled.

inguin to the specifications covered unless a paired for specifications covered unless a bid is filed.

The Board of Awards reserves the right to reject any and all bids.

A certified check of the bidder on a clearing-house bank, drawn to the order of the Mayor and City Council of Baltimore, to the amount as recited in the specification, must accompany each bid.

The successful bidder will be required to furnish bond and to comply with the City Charter respecting contracts.

By order of the Paving Commission.

R. KEITH COMPTON,

Chairman.

Secretary.

Approved:
HOWARD BRYANT,
Acting President Board of Awards.
Approved:
FRANK DRISCOLL,
Asst. City Solicitor.

H. G. PERRING, Chief Engineer.

Bids close May 17, 1921.

Street Paving

Street Paving

Sealed proposals will be received by the City Council of the City of South Jacksonville, Florida, until 8 P. M. May 17, 1921, for furnishing all materials and doing all work necessary for laying approximately thirty-five (35,000) thousand square yards of apparatible block or brick paving, and also approximately 36,000 lineal feet of concrete curb and gutter or granite curb in the City of South Jacksonville, Florida, on the streets required to be paved by Ordinance No. 222, as designated below:

All work and materials shall be in accordance with plans and specifications therefor on file in the office of the City Clerk, and such plans and specifications and further information may be obtained from the office of the City Engineer.

A certified check on the Bank of South Jacksonville to the amount of 2 per cent, of the total bid, made payable to R. M. Rogero, City Clerk, must accompany each bid as a guarantee that the bidder will, if awarded the contract, promptly enter into agreement to do the work and furnish the required bond. Each bid should be addressed to the City Hall. The Council reserves the right to use one type or both. The printed instruction to bidders and general stipulations included in the specifications for paving must be strictly compiled with, and said specifications shall be considered as a part of this advertisement.

R. M. ROGERO, City Clerk, City of South Jacksonville, Fla.

Bids close April 26, 1921.

**Paving** 

Richmond, Va.

Richmond, Va.

Sealed proposals will be received at this office until 12 o'clock noon April 26 for the following work, which may be awarded in whole or in part, to wit: The paving of certain streets with Sheet Asphalt, Asphaltic Concrete, Bitulithic, Willite Process, Vitrified Brick, Durax Block and Granite Spalls, covering an expenditure approximately of Two Hundred and Fifty Thousand (\$250,000) Dollars.

Forms of proposals can be obtained on application.

Forms of proposals can be obtained on application.

A certified check for amount stated on proposals must accompany each bid as a guaranty of execution of contract. The Director of Public Works reserves the right to reject any and all bids.

ALLEN I SAVILLE

ALLEN J. SAVILLE, Director of Public Works,

Bids close May 2, 1921.

### Street Improvement

Sealed bids will be received by the City Clerk of Newport News, Va.

Sealed bids will be received by the City Clerk of Newport News, Va., until 2.30 P. M. Monday, May 2, 1921, at which time same will be publicly opened, for the following work:

1. Concrete curb and gutter on 25th Street from Warwick to Madison Avenue, approximately 3400 lineal feet.

2. Concrete curb and gutter on 35th Street from Virginia to Huntington Avenue, approximately 1300 lineal feet.

3. Approximately 1997 square yards of 6-inch one-course concrete to be laid on 35th Street from Huntington Avenue to Virginia Avenue.

street from Huntington Avenue to Virginia Avenue.

4. Approximately 1527 square yards of 6-inch one-course concrete to be laid on 42d Street from Washington Avenue to Huntington Avenue.

5. Approximately 1527 square yards of 8-inch bituminous macadam, asphalt penetration, to be laid on 34th Street from Washington Avenue to Huntington Avenue.

6. Approximately 1527 square yards of 6-inch one-course concrete, or 8-inch bituminous macadam, asphalt penetration, either pavement optional with the City Council, to be laid on 27th Street from Huntington to Washington Avenue.

Specifications covering the proposed work are on file with the Director of Public Works, Municipal Building, and can be seen on application.

Municipal Building, and can be seen on application.

All bids must be made on proposal sheets, which will be supplied by the Director of Public Works, and must be accompanied by a certified cheek, payable to the order of the Treasurer of the City of Newport News, for 5 per cent. of the amount bid.

The right is reserved to reject any or all bids.

The right is reserved.

All bids must be addressed to the undersigned, and should be plainly marked on the outside of envelope: "Bids for Construction Work."

J. L. FICKLEN. City Clerk.

Bids close May 5, 1921.

### Street Improvements

Scotland Neck, N. C.
Sealed proposals for constructing street
improvements in the Town of Scotland Neck,
N. C., will be received by the Mayor and
Commissioners until 12 o'clock noon on the
5th day of May, 1921.

The work will consist of approximately
30,000 square yards of sheet asphalt or other
pavement on a concrete foundation, or of
concrete pavement, together with the necessary curbing, gutters, etc.
Blank forms of proposal and specifications
may be obtained from the Engineer. Plans
are on file with the Town Clerk, and certified check for three per cent (3%) of the
bid is to accompany the proposal.

The right is reserved to reject any or all
of the bids.

HUGH JOHNSON, HUGH JOHNSON, Mayor. HENRY T. CLARK. Clerk.

Engineer: WM. M. PIATT. Durham, N. C.

Bids close May 5, 1921.

### Street Improvement

Proposals will be received by the Boards of Commissioners of Improvement Districts Numbers 6 to 15, inclusive, of the City of Cleveland, Tennessee, at the office of the Engineer, for the said Commissioners in the City Hall of the said City up to 3 o'clock P. M. of May 5, for the improvement of certain streets, avenues and highways within the corporate limits of the said city. The quantities of work proposed to be done are estimated by the Engineer as follows:

lone are estimated by the Engineer as folows:
Grading, 10,900 cubic yards.
Paving, 56 510 square yards.
Curbing, 23,895 lineal feet.
Curbing reset, 100 lineal feet.
Sidewalk, 6990 square yards.
12-inch storm sewer, 3285 lineal feet.
18-inch storm sewer, 2975 lineal feet.
18-inch storm sewer, 290 lineal feet.
21-inch storm sewer, 200 lineal feet.
21-inch storm sewer, 500 lineal feet.
33-inch storm sewer, 500 lineal feet.
33-inch storm sewer, 600 lineal feet.
36-inch storm sewer, 600 lineal feet.
The work (with the exception of one section of street, which is to be paved if the exclusive cost of the city) is obe done on the abutting property plan.

tion the

will be met in cash monthly. The abutting owners' share will be paid at the option of the city, in either part cash and part shorterm serial bonds, running not more than four years and bearing 6 per cent. Interest (the same being general obligations of the city), or in cash.

Detailed plans, standard drawings, bidding sheets and specifications are on file in the office of the Engineer, where they can be inspected, or copies can be obtained by the deposit of Five Dollars (\$5) with the Engineer, which deposit will be refunded upon the return of the blueprints in good order. All bids must be accompanied by a certified check or by an indemnity bond, with good and solvent sureties in a penal sum of at least ten per cent. (19%) of the total cost of the work bid upon, to be computed on the basis of the unit prices submitted by the bidder on the above-estimated quantities.

Bids will be received on sheet asphalt

by the binder to the above the state of titles.

Bids will be received on sheet asphalt (natural or residual); asphaltic concrete (natural or residual); cement concrete, bituninous macadam, or on such other classes of pavement as bidders may select, conditioned upon their specifications receiving the written approval of the Engineer.

L. WOOLLEN, Chairman.

Chairman.
S. D. NEWTON,
Engineer for the Commissioners.

Bids close April 28, 1921.

### Street Improvements

Mebane, N. C.
Sealed proposals for constructing street
improvements in the Town of Mebane, North
Carolina, will be received by the Mayor and
Commissioners until 12 o'clock noon on
Thursday, the 28th day of April, 1921.
The work will consist of 30,000 or more
square yards of sheet asphalt pavement on
a concrete foundation or of cement concrete
pavement, together with the necessary curbing, gutters, drains, sidewalks, etc.
Blank forms of proposal and specifications
may be obtained from the Engineer. Plans
are on file with the Town Clerk.
Certified check for 3 per cent. of the bid
is to accompany each proposal.
The right is reserved to reject any or all
bids. Mebane, N. C.

W. S. CRAWFORD, M. ALICE FOWLER.

Athens, Tenn.

Engineer: W. M. PIATT, Durham, N. C.

Bids close May 2, 1921.

### Street Improvement

Athens, Tenn.

The Mayor and Aldermen of the City of Athens, Tenn., will, until 12 (twelve) noon on May 2, 1921, at the office of the City Recorder, receive sealed bids for approximately 22.355 square yards paving, grading, curbing and improving Improvements Districts Nos. 1, 2, 3, 4, comprising Jackson, White, Main and Washington streets.

Plans and specifications can be secured from the City Recorder at his office in the City Hall.

Bidders will be required to denosit a contil

City Hall.

Bidders will be required to deposit a certified check to the amount of 10 per cent, of their respective bids, to insure contract and bond in case their bid is accepted.

The City Council reserves the right to reject any and all bids.

FRED. STEPHENSON,

City Recorder

City Recorder.

R. P. KNIGHT, Mayor.

Bids close May 3, 1921.

### Reinforced Iron Screen

The Board of County Commissioners of Pinellas County, Clearwater, Fla., Clearwater, Florida, will receive sealed bids up until 11 o'clock May 3, 1821, for reinforced iron screen. Specification: Frame, steel, 1½"x1½"x½", reinforced with 1"x½" steel, riveted, with countersunk heads every 12" approx. Wire, hard steel wire, No. 11, with 3-mesh to the inch, riveted between the steel angles Placing—All screens to be approxed.

Wire, hard steel wire, No. 11, with 3-mesh to the inch, riveted between the steel angles and plate.

Placing—All screens to be placed with expansion bolts into the brick work securely to the satisfaction of the Commission.

Painting—To be painted one shop coat red lead and coat paint before placing; graphite The Board, recovered.

The Board reserves the right to reject any or all bids.

ny or all blds.

J. N. BROWN,

Clerk Board of County Commissioners,

Pinellas County, Florida.

Hids close April 26, 1921.

### Concrete Shoulders

STATE OF MARYLAND. STATE ROADS COMMISSION.

Baltimore, Md.

STATE ROADS COMMISSION.

Baltimore, Md.
Sealed proposals for building one section of State Highway as follows:
FREDERICK COUNTY — CONTRACT No.
F-7C: One section of State Highway from end of Contract No. F-7B Extd, at the Bartonsville Road along the Frederick Pike to New Market for a distance of 5.0 miles. (Concrete Shoulders.;
Will be received by the State Roads Commission at its offices, 601 Garrett Building, Baltimore, Md., until 12 M. on the 26th day of April. 1921, at which time and place they will be publicly opened and read.
Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1. as hereafter no charges will be permitted. No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.
The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.
The Commission reserves the right to re-

contracts

contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 14th day of April, 1921.

J. N. MACKALLI.

Chaleman

Chairman.

L. H. STEUART, Secretary.

Bids close May 14, 1921,

### Drains and Sewers

Sealed proposals, addressed to W. P. Hunter, City Manager, will be received until noon Saturday, May 14, 1921, for the construction of approximately:

\$50 Lin. Ft. of Concrete Arch or Box Drain.

700 Lin. Ft. of 42" Brick, Concrete or Segment Block Sewer.

\$50 Lin. Ft. of 42" Brick, Concrete or Segment Block Sewer.

500 Lin. Ft. of 36" Concrete or Terra-cotta Pipe.

1.200 Lin. Ft. of 24" Concrete or Terra-cotta Pipe.

Fipe.

1.200 Lin. Ft. of 24" Concrete or Terra-cotta Pipe.

2.200 Lin. Ft. of 12" Terra-cotta Pipe.

2.500 Lin. Ft. of 16" Terra-cotta Pipe.

2.500 Lin. Ft. of 8" Terra-cotta Pipe.

10.000 Lin. Ft. of 8" Terra-cotta Pipe.

10.000 Lin. Ft. of 6" Terra-cotta Pipe.

Bids must be made out on blanks furnished by the City Engineer and must be accompanied by a certified check for 5 per cent. of the amount of each bid, and a bond of 50 per cent. of the contract price will be required of the successful bidder to guarantee the faithful performance of the contract.

Plans, specifications and proposals may be obtained from the office of the City Engineer on and after April 30, 1921.

The right is reserved to reject any or all bids, or to award the contract as may be deemed to the best interest of the city.

W. P. HUNTER.

City Manager.

Bids close May 3, 1921.

### Light Service Meters

Brooksville, Miss.
I am authorized to advertise for bids for
to 100 110-v. A. C. light-service meters, to
e delivered here.
Bids to be opened May 3, 1921.
TOWN OF BROOKSVILLE.
By J. N. McMORRIS.

Bids close May 9, 1921.

### Reinforced Concrete Bridge

Manchester, Ky.

Manchester, Ky.

Sealed proposals for the construction of a reinforced concrete bridge, about 190 feet long. on South Fork of Kentucky River, at oneida, Clay County, Ky., will be received by the Bridge Commission of Clay County at Manchester, Ky., until noon Tuesday May 9, 1921.

Bids must be in accordance with the plans and specifications of the Concrete Steel Bridge Co., Knoxville, Tenn., and must be accompanied by a certified check or approved bid bond for two thousand (\$2000) dollars.

The Commission reserves the right to reject any or all bids.

Plans and specifications may be seen at the office of the County Court Clerk, Manchester, Ky.

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Bids close April 26, 1921.

### **Bridges**

OFFICE OF VIRGINIA STATE HIGHWAY COMMISSION.

116 S. 3d Street.
Richmond, Va., April 13, 1921.
Bids will be received at Office of the Virginia State Highway Commission, 116 South 3d Street, Richmond, Va., until 12 o'clock moon Tuesday, April 26, 1921, for the construction of the following bridges: Virginia Project No. S-91, reinforced concrete bridge, 96 feet long, over Brook Run in Henrico County, on State Road No. 1.
Virginia Project S-92, reinforced concrete bridge, 35 feet long, over Rose Creek, near Lawrenceville, in Brunswick County, on State Road No. 1.
Engineers will be at the following places to show contractors over the projects as

follows:
At office of Resident Engineer, 116 South
3d Street, Richmond, at 10 o'clock Tuesday,
April 19, for Project No. S-91.
At Lawrenceville, 10 o'clock Wednesday,
April 20, for Project S-92.
A certified check to the amount of 5 per
cent. of the total bid, made payable to the
State Highway Commissioner, must accompany bids for each bridge.
Plans and specifications are on file at
office of Virginia State Highway Commission, 116 South 3d Street, Richmond, and

for Project S-92 at office of Resident Engi-neer, Lynchburg, Va. Plans can be secured from W. F. Hobart, 104 North 8th Street, Richmond, Va., at cost of \$0.63 and postage

per set.

The State Highway Commissioner reserves
the right to reject any or all bids.
G. P. COLEMAN,
State Highway Commissioner.

Bids close May 9, 1921.

## Portable Gravel Screening Plant

Portable Gravel Screening Fiant
Lagrange, Texas, April 1, 1921.
Fayette County, Texas, desires bids for one portable gravel screening plant, capacity twenty tons daily. All bids must be filed with County Clerk, Fayette County, Texas, by 9 A. M. May 9, 1921, on which day said court will meet to open and consider said bids. All usual rights reserved.

GEO. HAUSLER.
County Auditor, Fayette County, Texas.

Bids close May 4, 1921.

### Court House and Jail Building

Baton Rouge, La., April 7, 1921.
Sealed proposals will be received at the office of Mr., Joseph Cebelin, Chairman of the Building Committee, in the Bank of Baton Rouge, Baton Rouge, La., until noon Wednesday, May 4, 1921, for the erection of a courthouse and jail building at Baton

Rouge, La. Plans and specifications may be obtained at the office of Edward F. Neild, Architect, Shreveport, La. The right is reserved to reject any or all bids submitted. Surety Bond for 50 per cent. of the amount of the contract will be required of the contractor to whom the work may be awarded. A deposit of \$50 will be required to insure the return of plans and specifications.

PARISH OF EAST PATON ROUGE.

JOS. GEBELIN.

President.

Attest: F. A. WOODS, Secretary.

Bids close May 3, 1921.

### Water Works Equipment

Notice is given that the City Council of the City of Ocala, Fla., will at its meeting on May 3, 1921, at 8 P. M., in the City Hall of said city, receive bids for the following machinery installed: A hot process water softener of 3200 gallons per hour capacity, complete with heater section, sedimentation tank, chemical solution tank, chemical pumps, proportioner and sand filter. Address bids to City Clerk, Ocala, Fla. The right to reject any and all bids is reserved.

D. E. MctVelt,

President of City Council.



# **CLASSIFIED OPPORTUNITIES**

### MINERAL AND TIMBER LANDS, WATER **POWERS, MISCELLANEOUS PROPERTIES**

WANTED—To hear from parties who may be interested in buying coal, oil or gas lands, operating coal mines or timber tracts. Sal-ary basis. Can give best of references. P. O. Box 518, Charleston, W. Va.

I MAKE A SPECIALTY of leases, royal-ties, production, coal and timber lands and fluorspar properties in Kentucky. Have a fine tract of timber, with mills, etc. Also handle leases in Texas and Louisiana. E. D. Wat-kins, Oil Producer, Irvine, Ky.

### CLAY PROPERTIES

CLAY PROPERTIES

LARGE BRICK CLAY PROPERTY.
Favorably located directly on railroad and on bricked highway, eight miles west of Newbern, N. C.; adapted for high-grade brick, tile and other clay products. Has been examined and recommended by an eminent engineer as being unusually meritorious. Report will be furnished to interested parties. Owner will accept part payment in securities of properly financed and managed company. Thomas B. Hammer, Owner, Philadelphia, Pa.

### FELDSPAR PROPERTY

FOR SALE OR LEASE—A number of feld-spar properties ranging from two to thirty-six hundred acres, all in the feldspar dis-trict, surrounded by operating mines. Caro-lina Mineral Development Co., Asheville, N. C.

### MAGNESIA PROPERTY

MAGNESIA property analyzing 28 per cent. Hard rock phosphate over 78 per cent. Almost unlimited tonnage, and on railroad. Will sell outright, but prefer to lease on royalty basis. BROOKSVILLE INVEST-MENT CO., Box 44, Brooksville, Fla.

### COAL LANDS AND MINES

FOR SALE-2500 acres unimproved coal land in tracts. \$25 per acre; has several seams; top drift; adjacent railroad, mines. gns and oil. Cavanagh, McAlester, Oklahoma.

### LUMBER AND BUILDING MATERIALS

WHEN IN NEED of flooring, ceiling, siding, finish roofers, lath, shingles and dimension, write Stephens Lumber Co., Jackson-ville, Fla.; 50 E. 42d St., New York city, or 512 Hibernia Bank Bldg., New Orleans, La.

ONE MILLION FEET rough number two common pine hoards, both dry and green; f to 12-inch widths. C. D. Jordan, Monti-cello, Georgia.

### RATES AND CONDITIONS

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 26c. per line; 500 lines or more, 25c. per line.

### TIMBER OPERATION

FOR SALE—Lumber milling proposition, complete equipment, now in operation, Eastern Carolina; 25,000,000 feet timber; plenty more available; big bargain; \$175,000, half cash, balance terms. Address No. 5700, care Manufacturers Record, Balto., Md.

LATH AND TOBACCO STAVE TIMBER. FOR SALE-10.000 to 15,000 cords standing timber on N. S. R. R. near Newbern, N. C. Will sell by the cord with cash advance, fine opportunity for laths or tobacco stave factories. Thos. B. Hammer, Philadelphia, Pa.

TIMBER FOR SALE.
From twenty to one hundred and fifty million feet, in separate tracts, of pine and of hardwood. Deal direct with owner. J. W. Barnes, Savannah, Ga.

### TIMBER LAND

MEXICO TIMBER PROPOSITIONS.
Large and exceptional opportunities.
Write for details. P. O. Box 304, San Antonio, Tex.

### FARM AND TIMBER LAND

301 ACRES—Fine farm and timber land in Valley of Virginia; good for all kinds of crops, fruits and stock-raising; ample water, fair improvements, good neighbor-hood; enough timber on it to pay for it. A bargain. Phil Grasty, Danville, Va.

### COLONIZATION TRACT WANTED

WANTED—Tract of 5000 acres or more, suitable for cultivation after cleared and drained. Write full description, price and location. O. C. Strawn, 728 14th St. N. W., Washington, D. C.

### FRUIT, FARM AND TRUCK LANDS

### ALABAMA

FOR SALE-6000 acres on main line L. & N. Railroad; excellent for stock farm; 20 houses, sheds; sidetrack and regular stop for trains; artesian well; some timber. This tract can be bought at bargain. Address Roy Bell, Box H, Georgiana, Ala.

### ARKANSAS

80-ACRE FRUIT FARM near Fayetteville; 10 acres apples, 5 acres strawberries; fine spring; 45 acres in cultivation; a home bar-gain. \$4000. Geo, Ginter, Calcasieu Build-ing, San Antonio, Tex.

453-ACRE STOCK FARM adjoining Monticello. Southeast Arkansas. Two houses, barns, 100 stock, electric lighted, city water; fine climate; ideal dairy location; market for all produce; oil fields are drawing nearer; property is increasing in value. Good investment for subdivision or home. Two smaller farms farther out. J. W. Gibbons, Box 1453, Mobile, Ala.

### FLORIDA

FLORIDA. — Did you ever think about Florida strawberries—marketed December to May-potatoes, cabbage, lettuce, celery, etc. and the high prices they bring? We also ship in trainload the best oranges and finest grapefruit in the world. Send for 1921 list of groves and farms. Tampa-West Coast Realty Co., Inc., opposite Postoffice. Tampa, Fla.

IN PASCO, the prize-winning county of South Florida; 40-acre farm, with bearing grove, sugar cane and growing crops; new 7-room bungalow, barn, etc.; best of soil and location; everything first class; \$9000: terms. Apply owner, P. R. Evans, Jr., Dade City, Fla.

OPPORTUNITIES to engage in business, agriculture, fruit and nut-growing are numerous among healthful hills and on the fertile soils of Western Florida. Truthful information promptly furnished upon request to Marlanna Chamber of Commerce, Marianna, Electida.

SUGAR AND RICE LANDS in Cape Sable region, Florida. Two crops of rice a year. W. W. Dewhurst, St. Au-gustine, Fla.

FREE FLORIDA FARMS.—25 cents per acre monthly pays for it and profit-sharing certificate in our sugar and stock farms pays your money back under positive guaranty. Send for free booklet. Ideal American Corp., Johnstown, Bradford Co., Fla.

IDEAL HOME IN SUNNY FLORIDA. You have been desirous of a home or investment in Florida. Are you ready to availy yourself of the opportunity if assured of a square deal? The object of our company, who own no land, is scientific selection of honest lands at honest values. 95 per cent. of the business men are members, and our board of directors passes on every selection. The only system ever devised to protect the newcomer. newcomer.

newcomer.

Best tangerine, dairying and general farming section in Florida. Highest elevation and rolling.

Write your wants and for literature. Let us convince you. Do it now-today.

BROOKSVILLE INVESTMENT CO., INC., BROOKSVILLE, FLA.

MR. INVESTOR, I have a 3000-acre solid tract in Volusa County, Florida; on hard road and near railroad. Am forced to realize on this and will sell at \$7.50 per acre, one-half cash. Anyone able to handle can double and triple their money on this. W. A. Kieffer, 1026 Scarritt Bldg., Kansas City, Mo.

WE ARE OFFERING the greatest bar-gains in desirable Georgia farm lands ever offered on large tracts. If you want a nice farm or investment, write Globe Realty Co., Wrightsville, Ga.

#### MARYLAND

MARYLAND'S BEST FARMS.
Waterfront and inland catalogue represents every county in the State. C. H. Heintzeman, 922 S. Charles St., Baito., Md.

### MEXICO

I HAVE FOR SALE-1,350,000 acres of land located northern part of State of Coabulla, Republic of Mexico; has 18 miles frontage on Rio Grande River. \$2.50 an acre American money; no trading. W. H. Graham, Cuero, Texas.

### MISSISSIPPI

### MERIDIAN, MISS.,

The Center City of the South,
Offers to
Farmers and Stock Raisers
Good Lands at reasonable prices;
nine months' pasturage; plenty o
running water; mild winters.
First National Bank,
Meridian. Miss.

ACRE pecans and oranges on the Gulf, \$100; easy terms; big returns. Dept. M, Suburban Acres Co., Ocean Springs, Miss.

### NORTH CAROLINA

FRUIT AND FARM LANDS AND WATER-POWER. Before locating anywhere, investigate Elkin, N. C., in the land of the sky; best orchard and tobacco lands in the United States; plenty water-power; healthy climate. For information address Guaranty Loan & Development Co., Elkin, N. C.

FOR SALE-79 acres; could divide; four miles out; Sugar Creek neighborhood; good roads; excellent for dairy, stock or trucking. Bargain. H. F. Ray, Charlotte, N. C.

### SOUTH CAROLINA

FOR SALE—Farm containing 2225 acres, two miles from Sumter, S. C.; very fine for livestock and grain. R. A. Bradham, Sumter, S. C.

### VIRGINIA

VIRGINIA

500 ACRES.—A grand stock farm as well as general farming; Glies County; 250 acres cultivated, 150 acres blue grass sod, 100 acres nice, young timber; good dwelling, two tenant-houses, 4 barns; 40 springs; 9 acres bearing apples; two miles to two raliroads; one-half mile church, three-fourths mile school. All for \$45 acre; terms. W. R. Broaddus, West Point, Va.

### VIRGINIA

JAMES RIVER PLANTATION, 775 acres finest James River soil, \$40 per acre; \$50 acres cleared; balance in timber and wood at less than half the price of the adjoining land; owner must leave State on account of health. Pollard & Bagby, Richmond, Va.

## WEST VIRGINIA

THE BEAUTIFUL SHENANDOAH
VALLEY.
Fine homes, fine farms, and it and the
Eastern Panhadle of West Virginia the
best orchard land in the world; convenient
to the best markets. Write me for information. S. S. Felker, Public Square, Martinsburg, W. Va.

### WELL DRILLING

WATER WELLS.—We contract well-drilling upon any specification. Write us fully what your requirements are and how you wish to contract. Then we shall be glad to submit you a proposition. National Water Supply Co., Birmingham, Ala.

### DITCHING

Austin No. 0 machine digs for pipe lines 16 feet deep, 20 to 40 inches wide. For drainage it gives banks half-to-one slope, any depth to 6 feet, with 28-inch bottom. When 6 feet deep the top width is 8 feet. I dig by yard or lineal foot, or will furnish crew and work by the day. Best work at reasonable prices. References furnished. Machine now available. J. C. Stancil, Smithfield, N. C.

### INCORPORATING COMPANIES

INCORPORATE under the liberal laws of Maryland; \$100,000 charter stock certificates, minute book, and also details of complete organization handled by experts for \$63. The Corporation Company, Department C, Box 440, Baltimore, Md.

### FINANCIAL

"THE Betrayal of the People in the Federal Reserve Act," T. Cushing Daniel, author. This "International Bankers' Gold-Basis Scheme" has produced and can produce nothing but disaster. Read the remedy in this book and act at once to protect your business, your family and your country. Popular Edition, 25 cents. The Monetary Educational Bureau, 1416 F Street, Washington, D. C.

### BUSINESS OPPORTUNITIES

FOR SALE—The only plow factory in State where it is located, equipped with modern machinery and a fine foundry with plenty of moulding sand on property. This plant has been in operation for over seven years; situated in heart of excellent agricultural district; excellent opening for general foundry work, and well-established trade for all goods manufactured. Excellent railroad facilities and spur track on property. Will sell cheap; owner has other business. Address 5784, care Manufacturers Record.

WANTED — Reliable jobbers in West Virginia, Virginia, Georgia. Alabama, Mississppl, Louisiana, Florida and Mexico to handle high-grade line opera chairs and school desks. Exclusive territory to right parties. Address No. 5798, care Manufacturers Record.

40-ROOM HOTEL.—Owner will show purchaser bank book or refer to any bank in town. Has not made less than \$4000 net any year for last 7 years. \$25,500. Terms, \$3000 cash; balance to suit. Write Mrs. N. S. Ivy, Lakeland, Florida.

MUST SELL—32-mile railroad. Paid net 1919, \$500 per mile; paid net 1920, \$550 per mile; will pay net 1921, \$650 per mile. Unimited and increasing resources. No competition. Must sell quick. Price, \$200,000 cash. Property is clear; 5 per cent, to brokers, J. A. Clark, Asherton, Tex.

ESTATES.—Are you interested in an estate embracing real estate which is to be sold for partition and distribution? If so, you want all you can get out of your share. Write me about it. Col. A. M. Ellsworth, 270 Ponce De Leon Ave., Atlanta, Ga.

### BUSINESS OPPORTUNITIES

GUATEMALA—SPANISH HONDURAS—NICARAGUA. Having spent much of the past 12 years in Central American Republics, actively engaged in the cattle and livestock industry between those countries, West Indies, at times importing their beef cattle into the United States, I have practical knowledge of and am thoroughly familiar with this industry in those countries. Am familiar with land conditions throughout Central America that contain properties for ormunicate with parties interested in hereinabove possibilities, where investments yield large revenues and the cattlemen have 12 months' grazing. Oscar R. Whilden, Whitney Central Building, New Orleans, La

WANTED—To borrow \$50,000 on 20,000,000 feet of original-growth large yellow pine, located in the vicinity of Alken, S. C.; \$5,000-foot capacity sawmill, 3 steam dry-kilns; electric lighting plant; 7 miles standard-gauge logging railroad, 2 steam skilders. Low freight rate to all points from Norfolk to Boston, which advantage is sufficient to pay for this loan. Will make attractive proposition to party loaning the money. Answer No. 5797, care of Manufacturers Record, Baltimore, Md.

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C. M. B. HARLOW.
Ilarlow Building, Alexandria, Va. Washington, D. C.

### I KNOW NORFOLK.

Waterfront, Belt Line and Inland Industrial Properties.

W. W. ROBERTSON,
The Realtor,
Monticello Hotel, Norfolk, Va.

WANTED—A good-sized block of high-grade stock of exceptional earning possibili-ties to market among our large clientele. Money must be for expansion. Wiers & Co., 115 Broadway, New York. Established 1894.

### PATENT ATTORNEYS

PATENT-SENSE.

"The Book for Inventors
and Manufacturers."
FREE. WRITE
LACEY & LACEY,
Dept. 15, Washington, D. C. Established 1869.

EUGENE C. BROWN,
734 8th Street N. W., Washington, D. C.
PATENT LAWYER,
Former examiner U. S. Patent Office.

PATENTS. TRADE-MARKS AND COPY-RIGHTS.—Write for our Free Illustrated Guide Rook and EVIDENCE OF CONCEP-TION BLANK. Send model or sketch and description of your invention for our opinion of its patentable nature free. Highest references. Prompt service. Reasonable terms. Victor J. Evans & Co., 712 9th St., Washington, D. C.

INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book, "How to Obtain a Patent," sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chandlee & Chandlee, 412 7th St. N. W., Washington, D. C.

PATENTS.—Booklet free. Highest references. Best results. Promptness assured. Watson E. Coleman. Patent Lawyer, 624 FSt.. Washington, D. C.

### **FACTORY SITES**

BALTIMORE FACTORY

SITES

William Martien & Company. 1413 Lexington Bldg.. Baltimore, Md.

Record.

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### INDUSTRIES WANTED

FREE.
\$15,000 lot donated to any party who will build a modern fireproof hotel of 50 rooms or more. This lot is the best hotel site in the city. Main hotel recently burned. The best hotel city in the South. There will be no taxation on this building for a period of five years. If interested, write.

ABERDEEN CHAMBER OF COMMERCE, Aberdeen, Miss.

### MISCELLANEOUS

GREENVILLE, S. C.,
The Textile Center of the South.
Wants diversified industries, large or small.
Suitable sites available. Send for Booklet
A, Publicity Committee, Association of Commerce.

### BUSINESS PROPERTY

WASHINGTON, D. C. WE SPECIALIZE IN

Choice Chain Stores, Railroad Sidings and Warehouses, Business Properties.

· WEAVER BROS., 735 15th Street N. W.

### INDUSTRIAL PLANTS FOR SALE

COTTON MILL

SOUTHERN COTTON MILLS.
We have for sale two cotton mills.
One of 40.000 spindles,
One of 4200 spindles,
Write or wire for particulars.
F. C. ABBOTT & CO.,
Trust Building, Charlotte.

### **AGENCIES WANTED**

ESTABLISHED manufacturer's agent, office in Atlanta, organization covering Southern States, would like to represent manufacturers of school and church furniture and building specialties on an exclusive commission basis. Reply to No. 5799, care Manufacturers Record, Baltimore, Md.

WE WANT some lines of building material to handle on commission basis, and would like to hear from manufacturers or anyone interested; can give highest of references if desired. M. G. Burr, Wilmington, N. C.

SALES AGENCY for Norfolk and surrounding territory for D. S. salt-glazed terra-cotta, county road equipment, construction or maintenance, or would appreciate communication from any reliable firm desiring representative in Norfolk. Address No. 5792, care Manufacturers Record, Balto.

WANTED—Sales agency for Kansas City, for good, well-advertised article or manufacturers' line, by responsible party; 20 years' experience in hardware, floor coverligs, furniture, etc. W. A. Kieffer, 1026 Scarritt Bidg., Kansas City, Mo.

### SITUATIONS WANTED

A YOUNG MECHANICAL ENGINEER, with 10 years' experience handling men and materials, is open for a position as plant manager, superintendent of production or assistant to head of industrial corporation. With a ground work of the best general and technical training, he has selzed every opportunity to gain a comprehensive knowledge of men and affairs. He can bring to your industry executive ability, initiative ability to think, excellent health and a capacity for hard work. In addition to routine duties he can conduct investigations looking to greater economics in production. Eastern location preferred. Full details as to experience, training, reason for change, etc. 5800, care of Manufacturers Record.

YOUNG MAN, college education in economics plus four years of excellent business experience, now employed, desires position in managerial or statistical capacity with manufacturer in medium-sized city. No. 5793, care Manufacturers Record, Baltimore, Md.

### SITUATIONS WANTED

POSITION WANTED by chief engineer cold-storage, ice, electric and water plant; have overhauled and erected all kinds of plants; 15 years' experience; best of reference. No. 5802, care of Manufacturers Record, Paltimore, Md.

WANTED—Position superintendent C. S. oil mill; can put mill in Al condition and handle labor; six years' experience; best of reference. W. D. Chapman, 728 C St. S. E., Ardmore, Okla.

PRACTICAL CONSTRUCTION MAN with 30 years' experience designing, estimating and superintending residence construction desires position anywhere; excellent refer-ence. Address John W. Rudolph, Superin-tendent of Buildings, Allendale, N. J.

### MEN WANTED

WANTED.

Salesmen to close sales for our cold and heat-insulating and sound-deadening materials, on liberal commission basis. Prefer those now calling on architects, contractors and building-materials concerns; also those calling on the lee and refrigeration trades, offering our cold-storage insulation and low-temperature pipe covering. Territory centrally south from St. Louis to New Orleans, including Texas. First-class men only. Address. stating previous experience, references, etc., Union Fiber Co., 608 Wainwright Bldg., St. Louis, Mo.

WANTED—REPRESENTATIVES. Splendid opportunity for manufacturers, agents or salesmen, who are in touch with architects and engineers in the building trades to sell complete and established line of stationary vacuum cleaners. Liberal commission. Good territory now open. Address No. 5795, care Manufacturers Record, Balto.

WANTED—By a large corporation, engineer between the age of 28 and 38, familiar with concrete design, who is qualified to enter sales division; territory, two Southern States. Give all qualifications and past experience. Address No. 5796, care Manufacturers Record, Baltimore, Md.

WANTED—Young man as bookkeeper and office man in growing retail yard. Offers opportunity in proportion to ability. Give reference and salary expected. Bell County Lumber & Coal Co., Middlesboro, Ky.

MEN WANTED.

A young man in a legal or political position in a principal city or county-seat having time and inclination to solicit the engraving of certificates of stock, bonds and
securities for municipalities, counties or
mercantile corporations on a commission
basis. We furnish samples and full information.

basis. We turned formation. SECURITY BANK NOTE CO.. 223 CHESTNUT STREET, PHILADELPHIA, PA.

WANTED—A manager for a manufacturing company located in the South: salary to capable man, \$5000 per year: must be in a position for invest from \$10.000 to \$15.000. Address No. 5788. care Manufacturers Record.

WANTED — High-powered, clean-cut, live-wire sales manager to travel; one with a magnetic personality who can organize and open up selling agency through the United States. To the right party, who can offer a nonosition that will make thousands of dollars for him. Write, Attention Traveling General Sales Manager, Gastine Co., Bridgeton, New Jersey.

IF ACTUALLY QUALIFIED for salary between \$2500 and \$25,000, communicate with undersigned, who will negotiate strictly confidential preliminaries for such position; executive, administrative, technical, professional; all lines. Not an employment agency. Undersigned acts in direct confidential capacity, not leopardizing present connections. Established 1910. Send name and address only for explanatory details. W. W. Buby. Inc., 303 Lockwood Bldg., Buffalo, New York.

WANTED — Salesmen, farm lands and manufacturing sites. Louisiana is attract-ing attention everywhere. Sales easy. Good commissions. We furnish literature. Bacon & Johns, Baton Rouge, La.

### MACHINERY AND SUPPLIES

VERTICAL MOTORS.—2—7½ H. P. Watson, 220 volts, D. C., 800 R. P. M., with starters, brand new, \$250 each. 1—10 H. P., same characteristics, \$300. All kinds machinery. Pratt Thompson, 220 East Lexington street, Baltimore, Md.

WANTED — Good second Hooper box printer; two-color and automatic hand holer and groover. Drawer U. N., Emporia, Va.

FOR SALE.

One Stearn's 8-ft. band sawmill complete, with carriage, 10-in. steam feed, nigger, trip, edger, live rolls and one Giddings & Lewis 5-ft. horizontal band resaw, carrying 8-in. saws.

Three (3) 150 H. P. Erie City R. T. boilers. 75,000 ft. dryklin pipe and necessary klin equipment.

70—Standard-gauge 30,000 capacity logging cars.

cars.
One 32-ton Heisler geared locomotive.
One 36-ton Shay geared locomotive.
Address Emporia Mfg. Co., Emporia, Va.

FOR SALE.

1-150 H. P. Erie boiler.

1-100 H. P. York boiler.

1-80 H. P. York boiler.

Rutern tubular boilers.

ta bargain, as we need the room.

Bell Branch Ice & Water Co.,

Northfork, West Virginia.

SECOND-HAND OIL MACHINERY.

Exceedingly low prices will be quoted on cottonseed-oil machinery from mill now out of business.

Separator, 18"x14", Atlanta Utility Works; shaker, 18"x14", Atlanta Utility Works; hullers (2) size, Atlanta Utility Works; conveyor; 1 automatic seed scale, Richardson; 8" belt cup conveyor, 20" high; 6" belt conveyor, 20" high; small platform scale for oil tank. H. N. Alexander, Raymond, Ga.

FIRST-CLASS A. S. C. E. relaying rails, with angle bars included. 200 tons 30-lb., 150 tons 53-lb., 160 tons 40-lb., 150 tons 55-lb., 100 tons 40-lb., 150 tons 56-lb., all f. o. b. cars North Carolina point. 100 tons 60-lb., f. o. b. cars Indiana point. J. W. Wiley, Box 542, Greensboro, N. C.

FOR SALE—Boilers and Engines. One 40 H. P. Frick engine mounted on 50 H. P. Frick boiler on wheels. Two 50 H. P. locomotive boilers on skids. Eleven nortable engines and boilers on wheels, rebuilt, from 12 to 25 H. P. R. P. Johnson, Wytheville, Vs.

FOR SALE OR TRADE—One 2-ton freight elevator in just as good condition as a brand-new one. This is a bargain, and if you have any need for a freight elevator, we can surely get together on a trade. Communicate with us at once if you are interested. Box 386, Troy, Ala.

FOR SALE.

Complete asphalt contractor's outfit, consisting of Keystone grader, asphalt plant, six Superior two-ton trucks; stiff-leg derrick, unloader, Koehring mixer, one small Ransome concrete mixer; now located at Fayetteville, N. C., on Aberdeen & Rock Fish Railway tracks. Address communications to J. R. Hackett, American Contracting Co., Moultrie, Ga.

STEEL RAIL FOR SALE.
Several cars 30-pound steel rail with splices. Fine condition. Immediate shipment.
THE THOMAS HALL LUMBER CO.,
Charleston, W. Va.

FOR SALE.

1—8x12 belt-driven Norwalk air compressor, 100 lbs. pressure, 160 cu. feet air. Machine in first-class condition.

E. O. GRIFFIN SUPPLY CO., Houston, Texas.

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WANTED—Good second-hand church fur-niture, especially seats, for a rural church Give full description and price in first letter. Address P. O. Box 486, Buckhannon. W. Va.

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Can Offer Plenty of Labor

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HYDRO-ELECTRIC POWER EQUABLE CLIMATE

Sizes to suit all needs on all rail-roads. Supplies of coal, coke, iron and steel within trucking distance.

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Owners BIRMINGHAM, ALA.



Trench Excavation and Backfilling in the South for Sewers, Water Lines, Gas Lines, Pipe Lines.

Work done by lineal foot of trench or by day

Experienced operators and first-class equip-

ment.

Our patrons are scattered over the entire United States within a radius of 1200 miles of Chicago. We have equipment in nearly every State available on short notice and are well prepared to do work in the South.

Write for Circular and Information.

General Engineering & Construction Co. 1800-14 T. Avenue Rockford, Illinois

### AN OPPORTUNITY SELDOM OFFERED

An established Machinery House, not incorporated, located in the best distributing city in the South, has decided to incorporate. Plenty of local capital available. Will add Mill Supplies, Machine Shop for Rebuilding Used Machinery, Purchase Parts and Assemble New, Additional markets for us in Mexico, Central and South America.

We want high-grade men of unquestioned integrity and some means for each department. Logging Equipment. Contractors' Equipment. Used rebuilt Woodworking Machinery. Used and New Machine-shop Fools, Gas and Electric-power installation.

This is an opportunity seldom offered. All correspondence confidential. Address, stating fully qualifications, references, etc., in first letter.

A-219, care Manufacturers Record, Baltimore, Md.

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All Equipment Also

Offering for new Industry - Real Estate, Buildings and Railroad Sidings. Well suited for many industries.

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Nashville

### SALES AND ADVERTISING MANAGER wishes to make a change

EXPERIENCE:

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Address A-218, care of Manufacturers Record, Baltimore, Md.

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Investigated records and references of 25,000 engineers are available to employers of professional engineers.

The right man for the work required may be obtained without cost to the member of American Association of Engineers or the employer.

Employers are invited to write for our circular telling how the bureau operates and how it can serve you. It is conducted by engineers for engineers.

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Employers seire nearest office for quick service: New York, Washington, Boston, Pittsburgh, Detroit, St. Paul, St. Louis, El Paso, Los Angeles, San Francisco, Portland, Scattle, Omaha.

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J. T. PASCHAL Sec.-Treas. and Mgr

J. F. EASLEY, Resident Agent Ardmore, Okla.

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Mining, Refining and Manufacturing Oklahoma Asphalt

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NOTICE-To dealers, contractors and all others concerned: We wish to inform you that we own, in fee, eighty acres of "OIL and ASPHALT" land in Carter County, Oklahoma. We have "BILLIONS" of tons of the best grade of asphalt known waiting for a market. If interested, communicate with

J. T. PASCHAL, Box 747, Charlotte, N. C.

921.

## RECEIVER'S SALE

# Acworth Cotton Manufacturing Company

May 7, 1921

Pursuant to an order of the Superior Court of Cobb County. Georgia, there will be sold to the highest bidder on the terms hereinafter specified the following described property, to wit: The property known as the Acworth Cotton Manufacturing Co., located about five-eighths of a mile south of the town of Acworth, in said State and County, consisting of thirty-one acres of land, more or less, on which there are situated the following improvements:

MILL: The mill brick building 80x241 feet, single story, regular mill construction, equipped with sprinkler system as required by the Underwriters. The machinery in this building consists of 6120 spindles and the usual preparatory equipment—Lowell and the Saco-Lowell models 1906 and 1914. Designed and set to make knitting yarns delivered on cones from 12's to 30's.

POWER PLANT: Steam. Two 150 H. P. Walsh & Weidner Boilers. One 150 H. P. Corliss Valve Hardie-Tynes Engine. Fully equipped machine-shop, with tools, pumps, humidifyer system and boiler acce. sories.

COTTON WAREHOUSE: A wooden building 50x98 feet, single story. Sprinkled.

WASTE HOUSE: A two-story wooden building,  $20\mathrm{x}30$  feet, equipped with baling press.

MILL VILLAGE: Eighteen tenant houses, newly painted and in splendid physical condition. Equipped with city water and lights, church and school building.

REAL ESTATE: Thirty-one acres, more or less, of land with private side track and coal dump. Pasture with spring water.

Mill buildings, machinery, power plant, warehouses and tenant houses, for operatives, all in good physical condition and in operation. Mill was built and commenced operation in 1907, and has been uniformly successful.

Situated on the W. & A. Railway, on a direct line from the coal fields of Alabama and Tennessee, insuring quick and cheap delivery of coal.

Ample supply of native labor and cheap living conditions.

TERMS: All bidders for said properties are required to deposit a certified check in the sum of Five Thousand Dollars to guarantee the faithful carrying out of their bids, said sum to be forfeited to the corporation in the event the successful bidder fails to comply with his bid and the terms of the sale; who of the bid, in addition to the deposit above referred to, to be paid in cash within fifteen days after the acceptance thereof, and that the balance be paid in six equal installments; 10% of the balance to be paid within sixty days from the date of the acceptance of the bid, and a like amount to be paid every sixty days thereafter until the full amount of the bid has been paid; all deferred payments to bear interest at the rate of 7% per annum from date of sale.

All bids received will be submitted to the Court, and when so submitted, the Court has a right to reject any and all bids or to approve and authorize a sale to the highest and best bidder.

All bids received will be referred to the Court for approval or rejection within five days from the 7th day of May, 1921.

Good and sufficient warranty titles, free from liens or encumbrances, will be made to the purchaser under the order and decree of the Superior Court of Cobb County, Georgia.

Sealed bids will be received up to 12 o'clock M. on the 7th day of May, 1921.

The Receiver will exhibit this property to any prospective purchaser at Acworth, Georgia, any time before the date of the sale.

### Orlando Awtrey

Receiver Acworth Cotton Manufacturing Company, Acworth, Georgia.

## Factory and Warehouse Sites

AT

# ATLANTA For Sale or Lease

For Manufacturing or Warehouse Purposes Only

## Central of Georgia Railway

Extending from East Point to Inman, Georgia

Atlanta Rates

Regular Switching
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Good Labor Supply

Service Street Car Service

Electric Power
Water Supply

Suburban Trains

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Paved Roads

Sewerage

## R. R. OTIS, Agent

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One Segrave One-horse Hose Wagon, with two 10-foot ladders, having hose capacity of 1000 feet, same A1 condition, One Silby "Zeb Vancer" No. 1 Hand-drawn Steam Pumper, original cost \$7000, and a splendifine fighter. Suitable for towns without water pressure. Can be had at very low figure for quick sale. Address

**EDD WRENN** 

City of Reidsville

North Carolina



## MACHINERY AND EQUIPMENT WANTED

### We Want to Buy

Locomotives Locomotive Cranes Steam Shovels Cars Rail

E. H. WILSON & COMPANY COMMERCIAL TRUST BUILDING

### WANTED

Incandescent Lamps Electrical Supplies Motors

Laundry and Woodworking Machinery ELECTRICAL MOTORS CORP.

137 Lafayette St. New York City

### Wanted

### STEAM SHOVEL

About 1/2-yard capacity; also two Gasoline LOCOMOTIVES 24" gauge. Must be in A-1 condition. State best price and exact location.

INTERSTATE BRICK & TILE CORPORATION
Egg Harbor City, N. J.

## CASH

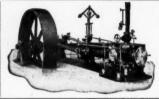
### FOR THAT ENGINE!

It is no good to you. Why not advertise it in this department and turn it into cash.

MACHINERY

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One 50-75 Horse Power Used Corliss Engine

Priced Right

NAZEL ENGINEERING WORKS 4041 N. 5th Street

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2—9½" Westinghouse Air Pumps. 1—11" Westinghouse Air Pump. They go to first offer.

Overstocked on Small Throttling and Automatic Steam

Going to move these by low prices.

HIGH POINT MACHINE WORKS, High Point, N. C.

### WATER PIPE FOR SALE

Five Thousand feet Steel Matheson Joint New Pipe, at a very low price, f. o. b. Warm Springs, Ga.

CHARLES L. DAVIS

### TWO B. & W. BOILERS. For Sale

550 H. P., 21 tubes wide by 12 tubes high, 4" diameter, 18' long. 3—42" drums, 7-16" thick, 20' 4" long; branded O. K. steel, 560 lbs., to carry 160-lb, pressure.

DALLAS POWER & LIGHT CO. Purchasing Dept.

Your Products Exhibited

### **BUILDERS' EXCHANGE**

BALTIMORE, MD. Will give you results in actual business. on ground floor Exhibits Write for information

### RETURN TUBULAR LOCOMOTIVE

## WATER TUBE

A LARGE STOCK OF HIGH-GRADE BOILERS OF PRACTICALLY ALL SIZES, TYPES AND MAKES, TAKEN OVER FROM DU PONT CHEMICAL COMPANY'S AND OTHER PLANTS WITH PRODUCTION RECORDS-RECONDITIONED, OFFERED SUBJECT TO ANY INSPECTION, AVAILABLE NOW!

"SAVE TIME AND MONEY ON YOUR POWER INSTALLATION—LET DAVIS FURNISH THE BOILERS"

LONG DISTANCE TELEPHONE
CENTRAL 1494 J. F. DAVIS HARRIS TRUST BUILDING CHICAGO, ILL.

## OIL AND GAS ENGINES

### For Sale **Prompt Deliveries**

New and Rebuilt Full Diesel Type

2—450 B. H. P. vert., 6 cyl., coupled to 3-ph.
60-cyc. A. C. generators.
1—450 B. H. P., vert., 6 cyl., bited.
2—255 B. H. P., vert., 6 cyl., bitd. or epid.
1—255 B. H. P., vert., 3 cyl., coupled to 200
K. V. A. 3-ph. 60-cyc. 2300-v. generator.
1—170 B. H. P., vert., 3 cyl., coupled to 85
K. W. 3-phase. 60-cyc. 2300-v. generator.
1—120 B. H. P., vert., 3 cyl., coupled to 85
K. W. 3-phase. 60-cyc. 2300-v. generator.
1—10 B. H. P., vert., 3 cyl., coupled to 85
E. W. S. Sepin. Diesel. Oil Engines.

-120 B. H. F., vert., 3 cyt., coupled or betted.

Semi-Diesel Oil Englines

-50 B. H P., vert sgl. cyl., 2 cyc., belted.

-40 B. H. P., vert., sgl. cyl., 2 cyc., belted.

-25 B. H. P., horlz., F-M., type "Y" belted.

Gas Engines

1—150 B. H. P., vert., 3 cyl., coupled to 100 K. W. 250-v. D. C. generator.

1—100 B. H. P., vert., 3 cyl., coupled to 62½ K. W. 123-250-v. D. C. generator. Above only partial list-write or wire us full details your requirements.

A. McMILLAN 628 Monadnock Block, Chicago Specialist in Diesel Oil and Internal Combustion Engineering

CHAS. A. McLEAN CITIZENS BANK BUILDING Norfolk, Va.

District Sales Agent: ERIE CITY IRON WORKS **Boilers and Engines** Machine Tools, Woodworking Machinery

Railroad Equipment.

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### FOR SALE

1—85 H. P. Beturn-Tubular Boller, with fittings; 105 pounds steam pressure allowed by insurance company, Same being sold to make place for larger boller. Will sell at a bargain for immediate shipment.

ORANGE LIGHT COMPANY Orange, Va.

### Complete Brick Plant FOR SALE

With motors, grinders, conveyors, belting and shafting, ready to be put in operation.

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### FOR SALE

### **CORLISS ENGINES**

1-12x30 Hamilton. -16x30 Hewes & Phillips.

-14" and 26x36" Cooper Heavy-duty Engine.

### GENERATOR

1—45 K. W. Westinghouse Belted Generator, 250 volts, D. C.

### FIRE PUMPS

3- 500 gallon. 1-1000 gallon.

Pressure and storage tanks-many

LOUIS A. TARR, Inc. BALTIMORE, MD.

### FOR SALE

1-460 H. P. Bust Water-tube Boiler, complete, with stokers.

358 H. P. Vogt Water-tube Boilers, complete, with

stokers.

3-300 H. P. Heine Water-tube Bollers, hand fired.

1-600 H. P. Springfield South Type Boller.

1-37/137 H. S. T., lap side seam, triple riveted.

1-60/218 H. B. T., butt Joint, triple riveted.

CHAS. T. LEHMAN - Birmingham, Ala.

MACHINERY BARGAINS

25 M. P. Fire Box Boller, \$250. 46 H. P. Return Tubular Boller, \$500. 60 H. P. Return Tubular Boller, \$500. 70 H. P. Fire Box Boller, \$500. 5 M. P. Boller and Engine, on wheels, \$3 9x12 Center Crank Engine, \$175. Send for special list with bargain prices. on wheels, \$250.

OLIVER CARTER - Wilmington, N. C.

### 35-K. W. NASH GAS ENGINE

Generator for lighting, 110 volts, and 80 H. P. Backus Gas Engine for city or producer gas; in A1 condition.

INDUSTRIAL ENGINEERING CO. Jersey City, N. J.

### 100-K-W GENERATOR

Ft. Wayne type M. P. L. Direct-current 20-volt 550 R. P. M. **6-pole** belted Generator, in first-class condition. Very low price.

Write us your motor wants. Write us your motor wants.

GENERAL MACHINERY & SUPPLY CO.

Besten, Mass.

### For Sale **USED MACHINERY**

1.—15 H. P. White and Middleton Gas Engine.
Price \$300.

1.—Blake 9"x5" Steam Pump. \$150.

1.—Blake 9"x5" Fyramid Belt-driven Pumps.
Price each \$15.

Goulds 9"x5" Belt-driven Triplex Pump.

1.—35 H. P. Orr & Sembower Vertical Steam
Engine. \$225.

1.—15 H. P. White & Middleton Gas Engine. with
extra heavy flywheel, suitable for driving a
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1.—8 H. P. Otto Horizontal Gas Engine. \$95.

1.—8 H. P. Otto Horizontal Gas Engine. \$95.

1.—1"x'23" Wood Bad Who Oliming Lathe; practically new. \$250.

Second-hand Machine Tools of all descriptions.

1 H. P. Smith 8" 4-side Moulder, in good condition. Frice f. o. b. location near Baltimore.
\$825.

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**PULLEYS** WOOD AND STEEL SPLIT CAST IRON C. R. SHAFTING

FAVORABLE

PRICES

Kemp Machinery Co. Baltimore, Md.

## BOILERS

### FOR SALE

1—Edge Moor Water-tube Boiler, 250 H. P., with fronts and fixtures, 150 lbs. pressure.

-H. R. T. Boiler, quadruple butt strapped, 19—6-ft, z 72" diam.; \$2—3\%" tubes, Hartford inspection 150 lbs.

Both of these Boilers are ready for immediate delivery, and we offer same at a sacrifice price for quick removal.

MARINE METAL & SUPPLY CO. 167 South St., NEW YORK CITY

### USED BUT GUARANTEED

## BOILERS Water Tube Return Tubular Marine Firebox

**ENGINES** 

GENERATORS

We Carry a Large Stock of Power Plant Equipment

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### THE MARKMAN ENGINEERING CO.

111 W. Monroe St. Chicago, Ill.

## WATER-WORKS PUMPING ENGINES

One (1) 14"x22"x27"x23"x24" PRESCOTT Triple-expansion Directacting 8,000,000-gallon per day Pumping Engine, complete with interheaters, water-works condenser and all connections in first-class condition;
105,000,000 foot-pound duty water end
Good for 175 lbs. working pressure.

Immediate dedivery, f. o. b. Jacksonville, Florida. Price on application.
One (1) 10"x16"x25"x18"x4"x18" Worthington Triple-expansion, with
water-works condenser and air pump; good for 110 to 125 lbs.; fire prestimediate delivery, f. o. b. Jacksonville, Florida. Price on application.
One (1) Worthington Dupler Compound 12"x24"x13", with jet
condenser, capacity 44 gallons per stroke, or 1,500,000 gallons per day.
F. o. b. Jacksonville, Florida. Immediate delivery. Price on application.
Two (2) Heine 278 H. P. Brand-new Water-tube Böllers, complete with
all fixtures except stack and bretchen, including super-heaters, if desired,
228 lbs. W. P.
One Fulton Iron Works Cross-compound Corliss Non-releasing Value-general

One Fulton Iron Works Cross-compound Corliss Non-releasing Valve-geat Engine, size 13x36x24, 300 H. P., 175 R. P. M., 16" jet condenser (Wm. Baragwanath & Son, Chicago), direct connected to Western Electric generator, 800 Amp., 250 volts.

generator, 800 Amp., 250 volts.

One Harrisburg Tasdem-compound Engine, automatic, size 7½x13x12,
75 H. P., 275 R. P. M., steam press, 115 lbs, condensing, connected to
Crocker-Wheeler D. C. generator, 200 Amp., 235 volts, size 53D, 50 K. W.,
275 R. P. M.
Switchboard, including main general leads, four panels, all marble.

2—184 H. P. Sterling Class E No. 16 Water-tube Boilers, for 160 lbs.
pressure, shaking grates.

1—Steel Stack, 106' high, 4' dis., made up with 5/16", 1.4" and 3/16",
plates, having 1259' guy wire.

1—Steel Breeching, 18' long, tapering from 1' 6" dis. at bottom to 4' 6" at top, %" steel plates.

1—250 K. W. General Electric Generator, Type A. T. B., Class 36, 446 volts, 3-phase, 60 cycles, speed 200, direct connected to 17"x28"x20" McEwin tandem-compound automatic steam engine.

1—200 K. W. General Electric Generator, Type A. T. B., Form E, 440 volts, 3-phase, 60 cycles, speed 200, direct connected to eross-compound buckeys steam engine.

No. SL-50B, 1—50 K. W. Ft. Wayne Exciter, 110-115 volts, direct connected to Ball automatic steam engine.

1—750 K. W. General Electric 2300-volt 3-phase 60-cycle Alternator, direct connected to 25"x42"x30" Lants cross-compound condensing escaped 16 for the steam of the state of

All equipment handled by us is guaranteed in first-class operating condition. Subject to prior sale or withdrawal without notice.

WALTER R. JENNISON - -

1007 Bisbee Building, Jacksonville, Fla.

## LOCOMOTIVE

### **CRUSHER**

1-Sturtevant Roll Jaw, size 6"x15".

### ROLLS

1-Sturtevant Balanced Roll, size 20"x14".

### MIXER

1-Werner & Pfleiderer No. 14 B. S., VII.

### CLASSIFIERS

1—Sturtevant No. 3, ¼, ½, 10, 100. 1—Sturtevant No. 0 Single H.

### **TRANSFORMERS**

-Pittsburgh, 200 K. V. A., 25 cycle. 13.200 volt, primary; 80, 90, 110, 140, 160, 180, 200,

220, secondary.

3-Pittsburgh, 5 K. V. A., 25 cycle.

13,200 volt, primary; 220, 110, secondary.

### DRYER

1-Louisville Steam Dryer, size 6'x25'.

75 K. W. 250-volt D. C. General Electric Generator, direct connected to Curtis turbine, 150 lbs. working pressure, complete with oiling system and switchboard.

### LATHES

10-19x8 Le Blond, double back geared, quick change, belt driven.

### HOISTING ENGINES

1—20 II. P. Mead-Morrison Bridge Holst. 1—40 H. P. S. D., 220-volt, D. C. Lidgerwood Build-

ers' Hoist.

1-814x10 S. S. S. D. Lidgerwood, with boiler. 2-714x10 D. C. D. D. National, with boiler. 2-714x10 D. C. D. D. Mundy, with boiler.

### AIR COMPRESSORS

1—350-ft. Air, Bury, steam. 1—1000-ft. Air, Sullivan. 1—60-ft. Air, Nagle, new, belted. 1—175-ft. Air, Ingersoll, steam. 1—190-ft. Air, American, steam.

### PUMPS

1-1000-gal. Knowles Single.

1—750-gal, Worthington Duplex. 1—500-gal, Advance Duplex.

40-Scranton, size 6x5\%x6, new.

1— 80 H. P. Return Tubular Boiler, 100 lbs. pressure.
2— 80 H. P. Locomotive Boilers, 100 lbs. pressure.
1— 75 H. P. Locomotive Boiler, 100 lbs. pressure.
1— 75 H. P. Economic Type Boiler, 100 lbs. pressure.
4—150 H. P. R. T., 125 lbs. pressure.
1—100 H. P. Economic Boiler, 100 lbs. pressure.

## MALLORY MACHINERY CORPORATION

BALTIMORE

MARYLAND

## Miscellaneous Equipment

### The Following are Ready for Immediate Delivery and are in First-Class Working Order

### BOILERS

15—Edgemoor Boilers, 1043 H. P., 200 pounds pressure, complete with Taylor stokers.

### MOTORS

3-150 H. P. 720 R. P. M. General Electric, 440 volts, 3-phase. 60-cycle. 5-150 H. P. 575 R. P. M. Allis-Chalmers, 440 volts. 5-250 H. P. 580 R. P. M. General Electric, 440 volts, 3-phase. 60-cycle.

### CONDENSERS AND HOT-WATER HEATERS

120—New Condensers, 450 sq. ft. condensing surface, copper tube %". 120—New Condensers, 150 sq. ft. condensing surface, copper

tubes ¾". 120—Patterson-Kelly Hot-water Heaters, 5'x3' 6".

### LOCOMOTIVES

2—24" gauge Atlas Storage-battery Locomotives.
1—24" gauge Merver Storage-battery Locomotive.
1—36" gauge Whitcomb Gasoline Locomotive.

### CARS

20-36" gauge Cars, double truck. 200-36" gauge Box Cars, single truck. 200-36" gauge Flat Cars, single truck.

### **ELEVATORS AND HOISTS**

1—Crane, hand operated, 15-ton capacity.
9—Elevators, vertical bucket, bronze, 34' on centers.
1—Elevator, vertical bucket, bronze, 19' 6' on centers.
1—Elevator, vertical bucket, 40' chain drive.
27—Freight Elevators, Otis make, 22' lift, 3000 lbs. capacity.
5—Freight Elevators, American make, 100' lift, 3000 lbs. capacity.

ity.
30—Freight Elevators, A. B. C. make, 35' llft, 5000 lbs. capacity.
2—Revolvators, 18' high, with 440-volt 3-phase 60-cycle motor.
1—Monorail System, complete. Cameron Mfg. Co.
1—Telpher System complete. N. J. Fdy. & Machine Co.

### **TURBO GENERATORS**

1—General Electric Noncondensing Turbo Generator, 1000 K. W., 6600 volts, 3-phase, 60-cycle.

### CHARGING SETS

25 K. W. General Electric 440-volt 3-phase 60-cycle Motor Generator Sets, complete with switching board, etc. TRANSFORMERS

40—New Transformers, 20 K. V. A. to 400 K. V. A., 6600 volts primary, 220/440 volts secondary. Maloney, Pittsburgh, Packard.

### **FANS AND BLOWERS**

FANS AND BLOWERS

119—Fans, No. 8 exhaust, turbine driven, capacity 5000 cu. ft. per minute when running at 1400 R. P. M. Inlet and outlet 18" dla., wheel 38" dlameter, vertical up discharge. Buffalo Forge Co.

2-Fans, wheel 20" dla., direct connected to 3 H. P. 3-phase 60-cycle 110/120-volt 1750 R. P. M. Wagner motor, type 11, T. B. A. No. 1. Consolidated Engine Co.

4-Fans, single width inlet, direct connected to ½ H. P. 60-cycle 3-phase 440-volt 850 R. P. M. motor No. 1. Consolidated Engine Co.

12-Fans, "Sirocco." No. 3½, single Inlet, belt driven, wheel 21" dla., outlet 17½/r21½/", capacity 4000 cu. ft. per minute against ½" static at 475 R. P. M. American Blower Co.

8-Fans, "Ningara Conoidal." No. 7, capacity 24,000 cu. ft. per minute at 570 R. P. M. against 3" static pressure, L. H. vertical up discharge, belt driven, pulley 18" dia., 6" face. Buffalo Forge Co.

### WIRE

Weather-proof, 0-750,000 C. M., in quantities. Also 3 Conductor armored and lead-covered cable.

### **ENGINES**

6-New Allis-Chalmers Simple Corliss Engines, 250 H. I'.
CENTRIFUGALS

32" Tolhurst. 36" American Tool & Machine Co. 42" American Tool & Machine Co. 48" Tolhurst.

### REFRIGERATING MACHINES

6—New Carbondale, 150-ton refrigeration capacity absorption machines complete.
30—Stands and Atmospheric Carbondale Condensers.
1-50-ton Freezing Tank, 59' 7" long x 32' 7" wide x 46" deep. containing 702 standard 300-lb, ice cans.

### Sales Department

## Charleston Industrial Corporation

NITRO, W. VA. OPERATING THE CITY OF NITRO

### BOILERS

### Practically As Good As New-Used Three Months

5-150 H. P. 72"x18' Kewanee Horizontal Return Tubular Boilers, designed and built for U. S. Government for 150 lbs. steam pressure; shell plates ½" thick; longitudinal seams, double built strapped, quadruple riveted; heads 9,16" thick material fire-box steel. Each Boiler contains 70 4" tubes; manholes, one below tubes front head, one in top of shell; each Boiler complete with full-flush front; shaking grates, all castings and iron work for complete erection in brick work; all steam fixtures, not to include stacks or injector.

Price for quick sale, \$1650 each f. o. b. Philadelphia. Wire your orders, our expense, subject to your immediate inspection.

LARGE ASSORTMENT OTHER BOILERS AND POWER EQUIPMENT.

### MACHINE TOOLS

30 Desirable Tools Selected From Our Varied Stock

30 Desirable Tools Selected
4-Spindle Acme 4/" Nut Tapper.
6-Spindle Allen Hi-speed Drill.
No. 33/6 Fox Power Feed Milling
Machine.
2—Moline Hole Hog Drills, capacity
2—Moline Hole Hog Drills, capacity
4-Spindle Honry & Wright Hi-speed
8-ensitive Drill.
12" Springfield Shaper.
12" Springfield Shaper.
18" Hollingsworth Shaper.
18" Hollingsworth Shaper.
18" Hollingsworth Shaper.
18" Hollingsworth Shaper.
18" Rogers
18" Stoll Inclinable Press.
No. 83 Toledo Straight Side Press.
No. 14-A Stoll Inclinable Press.
8 Bending Bolls; 6" and 8" rolls.
8 Bending Bolls; 6" and 8" rolls.
8 Bending Bolls; 6" and 8" rolls.
8 Lieut Hollingsworth Shaper.
12" Dement Slotter.
12" Dement Slotter.
12" Acme Single Head Bolt Cutter.
4" Acme Single Head Bolt Cutter.
4" Acme Single Head Bolt Cutter.
4" Oater Pipe Machine.
2" Oster Pipe Machine.

No. 14% Walker Surface Grinder, with magnetic chuck.

2—No. 1 Wilmarth & Morman Sur-face Grinders.

No. 1 Garvin Universal Milling Ma-chine.

30"x21" Zutnam Lathe.

22"x10" Fitchburg Lathe.

8" Curtis & Curtis Pipe Machine.

8" Williams Motor-driven Pipe Ma-chine.

2" COX Pipe Machine.

2" Williams Motor-driven Pipe Machine.

4—Alligator Scrap Shears. capacity
1 ½" square. 1 ½" round. 16"
knives. Engine-driven.

2" Strict Scrap Shears. capacity
1 ½" square. 1 ½" round. 16"
knives. Engine-driven.

2" Cox Power Pipe Machine.
2" Cox Power Pipe Machine.
2" Cox Power Pipe Machine.
1" Acme Bolt Cutter.

2" Snyder Sliding Head Drill.
No. 1½ Walker Surface Grinder, with
magnetic chuck.
No. 20 Van Norman Duplex Miller.

42" Pexto Power Squaring Shear.
6", 4", 2" Oster Power Pipe Machines.

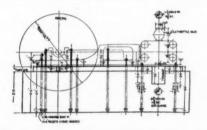
Large Stock of New and Used Machine Tools

### THE O'BRIEN MACHINERY COMPANY

119 North Third Street

Philadelphia, Pa.

Long Distance Bell Telephone: MARKET 2121 Cable Address: OBRIEN PHILADELPHIA



## Allis Chalmers Corliss Engines **BARGAINS IN ENGINES**

Ten Engines as above; NEW and USED; 250 H. P., 18"x36"; long sweep valve motion; full releasing intake; flywheel, 11' 0" diameter by 32" face; force feed lubrication.

### IN EXCELLENT CONDITION. Ready for Operation.

We guarantee them to be as represented. Tanks, Boilers, Contractors' Equipment, Pumps.

Sales Department

Charleston Industrial Corporation Nitro, W. Va.

## **EQUIPMENT FOR SALE**

2-150 H. P. R. T. Boilers, 100 lbs. pressure.

1-125 H. P. Side-crank Engine.

2-Hand-power Traveling Cranes, 24 and 29-ft. span. 5-ton capacity.

1-40" or 42" Gauge Locomotive (Baldwin), 10 ton.

1-25 H. P. D. C. D. D. "Byers" Hoisting Engine. with or without boiler.

1-16 H. P. "Pen Argyle" D. D. D. C. Hoisting Engine. no boiler.

### SOUTH SIDE FOUNDRY & MACHINE WORKS

Charleston, W. Va.

### FOR SALE OR RENT

BOILERS

Every size and for every duty. Horizontal, Tubular, Locomotive. Vertical and Water Tube.

Centrifugal pumps direct connected to engines, for handling sand and water.

HOISTING ENGINES With or without boilers; practically all sizes and standard makes in stock.

LOUIS A. TARR, Inc., Baltimore, Md.

# **BOILERS**

### WATER TUBE

1-250 H. P. Babcock & Wilcox, steel headers, 150 lbs. working

### HORIZONTAL RETURN TUBULAR

1-250 H. P., 84"x22', 78-5" tubes, 115 lbs, working pressure. 1-150 H. P., 72"x18', 70-4" tubes, 125 lbs, working pressure. 1-50 H. P., 54"x14', 125 lbs, working pressure.

### LOCOMOTIVE and PORTABLE

1-100 H. P. Ames Iron Works Return Flue, butt-strapped. 125 lbs. working pressure.

1- 70 H. P. Ames Locomotive, butt-strapped, 115 lbs, working

1- 15 H. P. Orr & Sembower Locomotive, 100 lbs. working

### VERTICAL

1-54"x10', 60 H. P., 100 lbs, steam pressure.

1-48"x 9', 40 H. P., 100 lbs. steam pressure.

1-42"x 8', 25 H. P., 100 lbs. steam pressure.

1-36"x 8', 20 H. P., 100 lbs. steam pressure.

1-36"x 7', 18 H. P., 100 lbs. steam pressure.

1-24"x 6', 6 H. P., 100 lbs. steam pressure.

Send for complete stock list.

FRANK TOOMEY, Inc. 127-131 N. Third St. -**PHILADELPHIA** 

## WILSON MACHINERY CO. 419 PINE ST. ST. LOUIS

### A. C. UNITS 60 CYCLE

		Engine
		11x12 Skinner.
440	277	Westge, V. C. C.
2300	125	Harrisburg, 4-valve.
2300	3600	Curtis St. Turb.
2200		14x22x19 Chuse 4-Va
480		14x18 Buckeye.
2300		17x16 Harrisburgh Va
2300		Parsons Steam Turb.
480		16x21 Erie City.
2300		18x20 Murray Uniflow.
440		5 14 x27x21 Erie City
2300		Curtis Hor. St. Turb
480	120	16x32x36 Vilter Corl.
2300	120	18x36x42 R. & S. Cor
2300	100	26x54x48 Al. C.C. Cor
Genera	tors e	an be reconnected
	440 2300 2300 2200 480 2300 480 2300 440 2300 2300 Genera	2300 300 440 277 2300 125 2300 3600 2200 220 480 25 3300 3600 2300 225 4401 2300 225 440 2300 120 2300 120

### D.C.UNITS-250 Volts

				125 7 0116
K. W.	Make			Engine
25	G. B.	125	300	9x10 Chuse.
75	Triumph	350		16x36 Murray Cor.
2- 75	Westge.	3-wire	275	14x14 Harrisburg.
	T. B.	250	250	16x16 McEwen.
	W. E.	125		19x18 4-Valve.
200	W.E.	250	175	13x26x24 Fulton Con
325	Westge.	250		Cooper T. C. Corlisa.
500	Westge.	250		Buckeye Cross-Comp.
2-800	F. W.	250		Erie City Hor. Cortiss
		-		

### OIL ENGINES

1-25 H. P., 1-35 H. P., 1-50 H. P., all Moits & Welss Crude Oll. 1-75 H. P., 1-150 H. P., 1-200 H. P. 106 K. V. A. Generator, 3-ph., 60-cy., dir. con to 4-cyl. Busch-Sultzer crude-oil engine. 156 H. P. M. & W. 225 H. P. Busch, 120 H. P. Busch; also direct connected units.

### **ENGINES**

12x36 Allis, 14x36 St. Louis, 16x36 Allis, 16x 42 F. S., 18x36 Bass, 20x42 St. L., 22x42 Fulton, 24x48 Allis, 26x48 L. & R., 22x48 Minne, 36x66 L. & B., 12x24x42 Bates Tand., 14x28x36 Minne. 16x24x36 Murray Tandem H.-duty, 16x 36x48 Bass.

### **BOILERS**

2-66x18	125 lbs.	4-250 B.&W.	160 lbs.
1-72x18	135 lbs	2-385 Heine	170 lbs.
2-72x20	140 lbs.	4-420 B.&W.	180 lbs.
2-78x20	125 lbs.	2-500 B. W.	175 lbs.
This is on	ly a partial	list. Let us b	know your
exact requires	ments; we pro	bably have it.	

### Prompt Deliveries on New Direct Current CHANDEYSSON Dynamos and Motors from 5 to 50 Kilowatts.

### PAN ELECTRIC MFG. CO.

735 South 4th St.

St. Louis, Mo.

### Engine Generator Set

75-KW, 110-220 Volts

4-VALVE ENGINE

PFANNMUELLER ENGINEERING CO. 503 First National Bank Bldg., CHICAGO

### MOTORS FOR SALE

	***	~~~			
1- 70	hp. 450	rpm. 24	0-v. D. C.	var. speed G.	E.
2-200	hp. 450	rpm. 44	0-v. 3-ph.	60-cy. G. E.	
2 - 150	hp. 500	rpm. 44	0-v. 3-ph.	25-cy.	
2-100	hp. 900	rpm. 22	0-v. 3-ph.	60-cy. G. E.	
3- 50	hp. 750	rpm. 44	0-v. 3-ph.	25-cy.	
1250	hp. 906	-1200-1	300 rpm. 3	3-ph. 60-cy.	
Large	stock o	of smalle	r sizes, A	. C. and D.	C.

## V. M. NUSSBAUM & CO., Fort Wayne, Ind.

### WATER WHEEL

One 21-in. Horizontal Shaft Smith Wicket Gate Turbine. Low price for immediate

> DILTS MACHINE WORKS, Inc. Fulton, N. Y.

If you wish to keep posted on the progress of the South, read the

## Manufacturers Record

Exponent of America

Price \$6.50 a year Six months for \$3.50

### FOR SALE

### COMPLETE POWER PLANT

2-400 K. W. DIRECT CURRENT GENER-ATORS, Direct Connected to Heavy-duty, Rolling-Mill type CORLISS ENGINES.

Can be operated condensing or non-condensing. Capable of 100% overload. Also:

1—800 H. P. COMPLETE BOILER PLANT, including all piping and fittings. Can be seen erected in position. No Bricksetting required.

Also complete stock of Electrical Machinery, Feedwater Heaters, Boilers, Stacks, etc.

Complete Power Plants Designed and Erected

Your Inquiries Solicited

## POWER EQUIPMENT CO. Engineers

1809 Buttonwood Street

Philadelphia, Pa.

Would YOU buy a SECOND-HAND ELECTRIC MOTOR at ANY price?

Affyou KNEW it to be as good as new?

Wire us your inquiries.

REGORY Second-hand E lectric Motors Bought, Sold and Exchanged.

In business since 1893.

16th and Lincoln Streets Chicago, Ill.

### A. C. MOTORS

### Large Stock-Reduced Prices

Immediate Shipment

Send us your inquiries before you buy.
We repair and rebuild all electrical machinery.
Berkshire Electric Co., Pittsfield, Mass.

# ICE, REFRIGERATION, AND ELECTRICAL EQUIPMENT

Largest list of fully guaranteed rebuilt apparatus in the South, embracing over \$3,000,000 worth of highclass equipment, in all sizes and all principal makes, at money-saving prices.

Tell us your wants; we can supply them. List your used apparatus with us; we can sell it.

### The Calhoun Machinery Exchange

Suites No. 5 and 6 City Hall Building EL RENO, OKLAHOMA

### NEW MOTORS—Immediate Shipment

Quan.	H.P.	V.	R.P.M.	Type	Make
3	25	220	850	K	R. & M.
1	40	220	1200	B	Fairbanks-Morse.
1	40	220	1200	H	Fairbanks-Morse.
1	40	440	900	H	Fairbanks-Morse.
1	50	440	900	H	Fairbanks-Morse.
1	50	220	1200	H	Fairbanks-Morse
1	50	440	850	AN	Allis-Chalmers.
1	75	440	900	В	Fairbanks-Morse.
1	75	220	865	AN	Allis-Chalmers.
1	150 •	2200	600	Q	Crocker-Wheeler.

### GEO. F. MOTTER'S SONS

Steam and Electrical Engineers
YORK, PA.

### **MOTORS**

1—100 H. P. Crocker-Wheeler, 2200 volts, 60-cycle, 3phase, slip-ring, 690 R. P. M.

### **GENERATORS**

1-150 K. W. D. C. Crocker-Wheeler, 250 volts, 200 R. P. M., engine type.

1-200 K. W. D. C. General Electric, 200 R. P. M., 3-wire, 125 to 250 volts, with engine.

1-250 K. W., 2300 volts, 60-cycle, 3-phase, 150 R. P. M., direct connected to uniflow engine.

1—200 K. W. Bullock, 220-250 volts, direct current, 450 R. P. M., 3-bearing.

### **ENGINES**

20x48"	Corliss.		161/2×30"	Buckeye.
12x16"	Buckeye.		18% x24"	Buckeye.
	13 and	22½x30"	Buckeye.	
	12 and	21 x27"	Buckeye.	

### 12 and 21 x21 Buckeye.

WATER TUBE BOILERS
3-266 H. P. Keeler, 160 lbs. Pennsylvania.

4—264 H. P. B. & W., 160 lbs. Ohio.

3-250 H. P. Franklin, 125 lbs. pressure.

1-400 H. P. B. & W., 150 lbs. Iowa.

### AIR COMPRESSORS

1-18x18" Duplex, belt driven.

2-23 and 13x20" Sullivan, belt driven.

Other steam and belt-driven compressors on demand.

### CONDENSER

1—12 and 20x24 Blake Single-cylinder Jet Condenser, brass fitted.

### CASTLE & WILSON

1601 Arrott Building - PITTSBURGH, PA.

### KEYSTONE ELECTRIC CO., BALTIMORE, MD.

New and Used Motors

Guaranteed

3 Phase, 60 Cycle, 220 or 440 Volts, Complete

1- 1	H. P	. Westinghouse	Used	1200 R. P. M.
2- 1	H. F	Gen. Elec.	New	1200 R. P. M.
2- 1		Gen. Elec.	New	1800 R. P. M.
2- 1 2- 2	H. F	Gen. Elec.	New	1200 R. P. M.
1- 2	H. P	. Westinghouse	Used	1800 R. P. M.
1- 3	H. P	. Howell Ball Bearing	Used	1800 R. P. M.
1- 7%	H. F	. Howell	Used	1200 R. P. M.
1- 71/2	H. P	Gen. Elec.	New	900 R. P. M.
1- 71/2		. Gen. Elec.	New	1200 R. P. M.
1- 10	H. P	. Gen. Elec.	New	900 R. P. M.
1 10	H. F	Gen. Elec.	New	1800 R. P. M.
1- 15	H. P	Gen. Elec.	New	900 R. P. M.
1- 20	H. P	. Westinghouse	Used	1800 R. P. M.
1 - 75		. Allis-Chalmers	Used	900 R. P. M.
1- 75		Gen, Elec. Slip-ring, 2200		514 R. P. M.
1-100		V. Westinghouse, 250 volts,		
COBI	aecte	d to Harrisburg engine. N	early new	7.

### R. SCHEINERT COMPANY 123-125 N. Third St., PHILADELPHIA, PA.

OFFER

- 1-25 H. P. Howell Motor, 2 phase, 60 cycle, 220 volt, 900 R. P. M., with slide rails, pulley and starting compensator, for \$300. Guaranteed good as new
- 1—75 H. P. Burke Motor, 3 phase, 60 cycle, 550 volt, 1800 R. P. M., with slide rails, pulley and starting com-pensator, for \$575. Guaranteed excellent condition.

Hundreds of other motors and generators of every size and description.

If you want prompt, efficient, reliable service, coupled with lowest obtainable prices on guaranteed equipment, send us your inquiries.

## W. A. CARRELL & COMPANY

211 Second Ave. PITTSBURGH, PA.

- 1-225 K. W. G. E. 500-550 V. Compound-wound 150 R. P. M. Generator, direct connected to 27%x28 Harrisburg steam engine complete.
- 1-800 K. W. Westinghouse 500-550 V. Compound-wound <sup>90</sup> R. P. M. Generator, direct connected to 24 and 36x48" C. C. Allis-Chalmers engine complete.
- 2-500 K. W. Westinghouse 500-550 V. Compound wound 320 R. P. M. Belted Generators complete.
- -225 K. W. 500-550 V. Westinghouse Compound-wound 500 R. P. M. Generator complete. Also 125-volt 250-volt and A. C. Generators in stock. 100 K. W., 150 K. W. and 200 K. W. 250-volt D. C. Generators direct connected to steam engines.

Motors, Generators, Gas Engines, Air Compressors, Ice Ma-chines,

### Immediate Delivery

1-New Portable U.S.L.OC Welder, 220 volts, 3 phase, 60 cycle current.

Offered at very attractive price, subject to prior sale.

SEEGER MACHINE TOOL CO.

Machinery and Supplies
34 S. Forsyth St.

Atlanta, Ga.

## IMMEDIATE DELIVERY

3-phase, 60-cycle, 220-volt Motors

2— 2 H. P., 1800 R. P. M. 3— 3 H. P., 1800 R. P. M. 4— 5 H. P., 1800 R. P. M. 1—15 H. P., 1800 R. P. M. 2—40 H. P., 830 R. P. M. 2—50 H. P., 850 R. P. M.

HARRY W. MOTTER **Electrical Power Equipment** 

YORK PENNSYLVANIA

# **Bargains in Elevators**

2-22 FT. OTIS LIFTS, 3000 lbs. live load at 60 ft. per minute.

Winding drum direct connected through worm wheel and worm to 71/2 H. P. motor running at 900 R. P. M., 440 volts, 3-phase, 60-cycle. Motor is located at side and at lower level of platform. Elevator is operated by means of standard Otis controller and is complete with oil limit switches. Platform size 8' 6" square with two sides open (opposite) and the other two sides protected with pipe rail guards. Platform of steel shapes. Overhead sheaves are protected by gratings. Two automatic safety gates for 8' 2" openings are provided. Shipping weight, approximately 12,000 lbs.

4-108 AMERICAN ELEVATOR & MA-CHINE COMPANY LIFTS. Type "BC" single gear drum type direct connected to Westinghouse 10 H. P. motor, 720 R. P. M. at full load, 440 volts, 3-phase, 60-cycle, complete, with special oil limit switches and control board. Motor-house at present located about 50' from elevator on lower level. Platform 8'x10', built of steel shapes. Shipping weight, approximately 15,000 lbs.

22-27 A. B. SEE ELEVATOR LIFTS, 5000 lbs. live load at 80 ft. per minute.

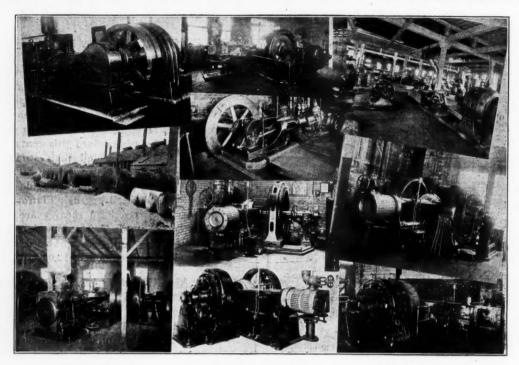
Drum is direct connected through worm wheel and worm to 15 H. P. motor, running at 1200 R. P. M., 440 volts, 3-phase, 60-cycle, complete, with oil switches, controllers and Motor and drum located switchboard. alongside. Platform size, 6'x13' with short sides open and long sides protected by pipe rail guards. Platform of steel shapes. Overhead sheaves protected by gratings. Two automatic safety gates for 6' openings are provided. Shipping weight, approximately 16,000 lbs.

Sales Department

## **Charleston Industrial Corporation** NITRO, W. VA.

OPERATING THE CITY OF NITRO

## RELIABLE POWER PLANT MACHINERY



### A. C. GENERATORS

### Belted and Direct Connected.

Belted and Direct Connected.

- 825 K. V. A. Westinghouse-Parisons 3-phase 60-cycle 230-volt Turbo Generator Set. - 373 K. V. A. Allis-Chalmers 3-phase 69-cycle - 375 K. V. A. Allis-Chalmers 3-phase 69-cycle - 375 K. V. A. Allis-Chalmers 3-phase 69-cycle - 375 K. V. A. Allis-Chalmers 3-phase 60-cycle - 375 K. V. W. General Electric 3-phase 60-cycle 2300-volt Turbo Generator Set. - 150 K. V. A. Allis-Chalmers 3-phase 60-cycle 2300-volt Alternator, 150 R. P. M., direct connected to a 14x30 heavy-duty Allis-Chalmers Corlins Engine. - 100 K. W. A. Electric Machinery Co. 3-phase 60-cycle 2200-volt 1200 R. P. M. Belted Type Alternator. - 62½ K. V. A. Electric Machinery Co. 3-phase 60-cycle 2200-volt 1200 R. P. M. Belted Type Alternator. - 62½ K. V. A. Lincoln 3-phase 60-cycle 480-volt Generator, direct connected to an 11x12 Chandler & Taylor automatic engine.

### A. C. MOTORS

3-F	hase,	60-Cycl	e,	8qu	irret	Cage	and	Slip	Ring.
No.	H.P.	M	ake	3.					B.P.M.
10	2	new		. E.			2	220	1800
2	2	new	W	stgh.				20	1200
7 6	3 5	new	G	. E.				40	1200
6	5	new	G	E.				20	1800
10	7 1/2	new	G	E.			- 2	20	1800
6	10	new	G	E.			2	20	1800
1	10	used	W	stgh.			2	20	1700
10	15	new		E.				20	1200
	15	new	G	E.	(slip	ring)		20	1200
2	15	new	F.	. M.		-	4	40	1750
1 2 1 6 6 2 6 1 6 1	20	used		M.			2	20	1200
6	20	new		E.				20	1280
6	25	new		E.				20	1200
2	25	new-		. E.	(slip	ring)		20	1200
6	30	new		. E.				20	1200
1	35	used			(slip	ring)		20	1200
6	40	new		E.				20	1200
1	40	new		E.			2	20	900
1	40	new			(slip	ring)	2	20	1200
4	50	new	G.	E.	-	-		20	1200
2	50	new	G.	. E.	(slip	ring)	2	20	1200
2	60	new	G.					20	900
2	75	new	G.	E.	(slip	ring)	2	20	1200
2 2 2 1	100	new		E.	(slip	ring)	2	20	900
1	100	used		stgh.				20	1200
	A	so mar	ıy	othe	r siz	es and	typ	168.	4

Any of the above 220-volt can be furnished for

### D. C. MOTORS

No.	H.P.	Make.	Volts.	R.P.M.
1	50	used Allis-Chal.	250	800
3	30	used J. & L.	250	600
1	20	used Triumph	220	965
1	15	used Minpls.	110	850
2	121/2	used Minpls.	110	1000
1	7 36	used Triumph	220	835
1	71/2	used Minpls.	110	800
2	5	used Triumph	220	1350
1	5	used J. & L.	220	900
1	5	used Triumph	115	1000
1	5	used Minpls.	110	725
2	4	used Triumph	110	1025
		a many other store and		

Also many other sizes and types.

### D. C. GENERATORS

Belted and Direct Connected.

Belted and Direct Connected.

1-10 K. W. Fairbanks-Morse 110-volt 1200 R. P.
M. Belted Type Generator.

1-22½ K. W. Allis-Chalmers 120-volt Belted
Generator, 923 R. P. M.
Generator, 923 R. P. M.
Generator, 924 R. P. M.
Generator, 925 R. P. M.
Generator, 925 R. P. M.
Generator, 926 R. P. M.
Generator, 927 R. P. M.
Generator, direct connected to a 18212 Erie Ball automatic engine on subbase.

2-75 K. W. Westinghouse 125-volt Generator, direct connected to a 14x15 Skinner automatic engine on subbase.

1-100 K. W. Triumph 125-volt 675 B. P. M.
Belted Type Generator.

1-100 K. W. Bullock 120-volt Generator, direct connected to a 15x16 Skinner automatic engine on subbase.

1-150 K. W. Northern 250-volt Generator, direct connected to a 15x18 Skinner automatic engine on subbase.

### STEAM ENGINES

1—17x34x48 Hamilton Cross Compound Heavy Duty Corliss, designed for rope drive. 1—16x34x48 Hamilton Tandem Compound Ileavy Duty, designed for rope drive. 1—18x36 allis-Chalmers Heavy Duty Corliss. 1—16x22 Allis Girder Frame Corliss. 1—16x22 Houston, Stawood & Gamble Slide

1-14x18 Eric City Iron Works Automatic. 1-14x16 Brownell Slide Valve.

1—13x16 Eric City Iron Works Automatic. 1—12x12 Eric City Iron Works Automatic. 1—13x16 Chandler & Taylor Slide Valve. 1—10x14 Houston, Stanwood & Gamble Slide Valve.

Valve. 1—10x12 Chandler & Taylor Slide Valve. 1—9x9 Industrial Vertical. 1—6x8 Industrial Horizontai. 1—6x6 Nagle Vertical.

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1—12x22x7½x18 Laidlaw-Dunn-Gordon Flywheei Type Pumping Engine, capacity 700 gals. per

Type Pumpling Engine, capacity 700 gals. per minute.

1—500 sq. ft. Worthington Surface Condenser.

1—10x18x10x18 Platt Iron Works Tandem Compound Duplex Pump, capacity about 600 gals. per minute.

1—6x10x10 Knowles Vacuum Pump.

2—6x3x6 Worthington Duplex Pumps.

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1—Used 48" Upright Drill Press.
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e x8" pulley. Worthington P. & M. Co.

1tem 29422.
3-No. 3, E. E. solid shell, open impeller type,
horizontal, vertical discharge 3", 4" suction,
beit driven, 7"x6" pulley. American Weil
Works.

Works.

Nem 29423.

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Co.
 Horizontal 4-stage No. 6 High-pressure Pumps, eide horizontal discharge 6" 8" surtion. 1000 G. P. M. against 650" head, direct connected to an Allia-Chaimers 3-ph. 40 cy. 300 H. P. 446-volt motor; all bearings water conted. Allis-Chaimers Mfg. Co.

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Hem 29437.

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Hem 29442.

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e" succion, neis driven, 14x10" pulley. Lawreneo P. & E. Co.

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230 H. P. Moore noncondensing single-stage
steam turbine, horizontal discharge. Les
team turbine, borizontal discharge. Les
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From "C". Type "L" 25, two-stage steam
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Item 29455.

Tem 29455.

Horizontal, class "BS" Volute, borizontal discharge 12", doubte 16" suction, 6000 G. P. M. at 05 lbs. dynamic pressure, at 1950 R. P. M. direct connected to a Form "C", Type "L" Worthington F. & M. Co.

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Item 29457.
-Horizontal, Duplex piston pattern, 3"x2%"x
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Tensile Strength, over 75,000 lbs. per sq. inch.

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60"x50"x516" Pond Planer, 3 heads,
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32" Cinclinant Leason Planer, 1",
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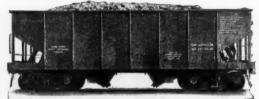
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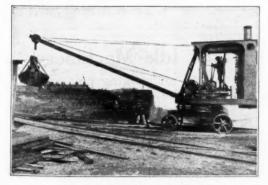
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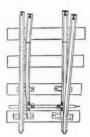
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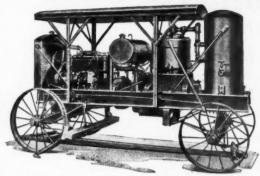
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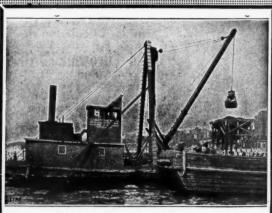
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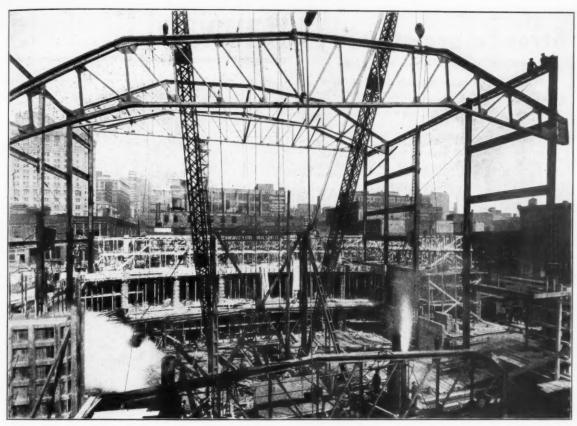
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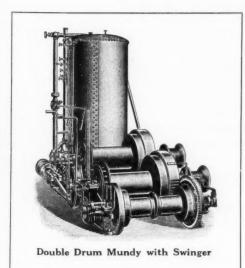
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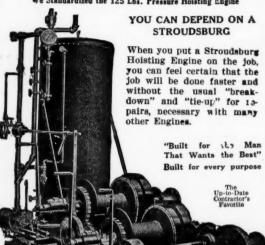
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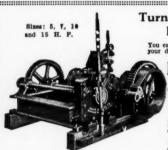


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This is bucket action that insures fast, economical coal-handling.

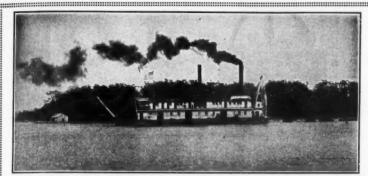
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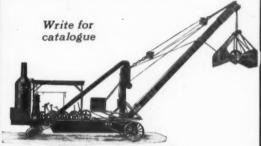
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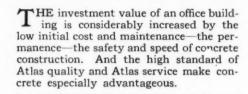
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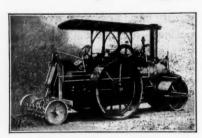
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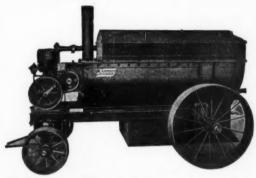


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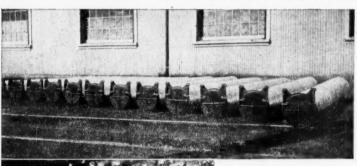
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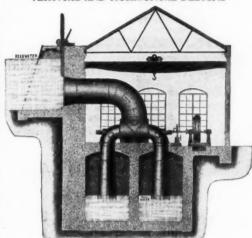
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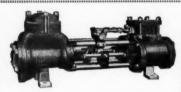
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These pumps receive their supply from the open feed-water
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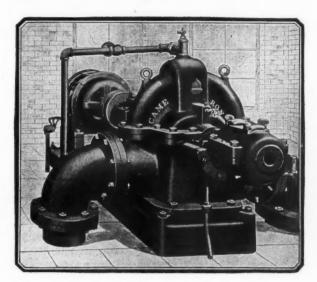
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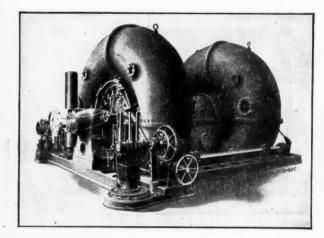
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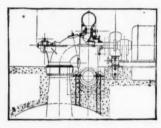
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## Worthington Hydraulic Turbines



6000 H.P. turbines installed in 1913 in Portland Railway & Light Co. plant, Portland, Ore.

Speed 240 R.P.M., head 80'; efficiency 87%.



#### Horizontal Single Discharge Turbine

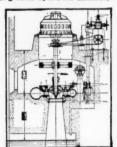
This type is used only on higher heads—usually over 50 feet. The horizontal turbine has the advantage of accessibility. It is most applicable where a natural solid foundation exists and little concrete work is necessary.

Substructures for horizontal turbines are simple and when

combined with a good, natural foundation the overall cost of the power house is kept low.

#### Vertical Cast-iron Spiral Flume Turbine

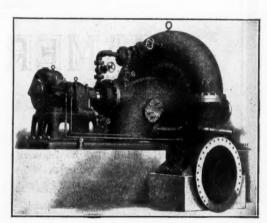
In general the advantages of the vertical turbine are: More favorable draft tube conditions and low mechanical losses which make for greater hydraulic efficiency.



For heads below 30 feet an open flume is usually used. Up to about 45 feet head the concrete spiral flume is suitable.

For heads over 45 feet the flume should be cast-iron, as shown, instead of concrete to withstand the pressure,

Where, on account of the power house site, the excavation and foundation are necessarily costly, the vertical turbine effects a saving in cost of the substructure. For this reason it is sometimes selected in preference to the horizontal turbine.



8000 H.P. turbines installed in 1906 for City of Seattle, Wash.

6001 head-600 R.P.M.

# WORTHINGTON

Deane Works, Holyoke, Mass.
Blake & Knowles Works
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Worthington Works
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Gas Engine Works, Cudaby, Wis.

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## Wheels of Progress

THE story of the water wheel goes far back into history and reaches from the flat paddle wheel of the Chinaman to the efficient users of "white coal" of today. But in all this story there is not found the keen interest in available hydraulic power that exists today.

The central station industry—alive to every opportunity of economical power production is probably displaying more interest in hydraulic power development than any other at this time. It is only natural, therefore, that Worthington should keep up with the industry it has served for so long and should encourage hydraulic power development by making water wheels.

The line of turbines developed by Worthington is adapted to central station or general industrial use; for all heads, high, low or medium. The Worthington turbine in addition to the Victor line of wheels taken over by Worthington from the Platt Iron Works enable the Worthington Pump and Machinery Corporation to handle any water wheel installation or problem that may arise.



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Deep Well Cylinders

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Deep Well Pumping Systems Installed Complete

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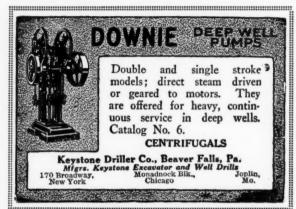
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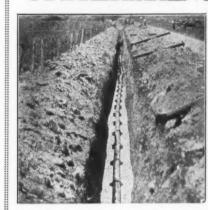
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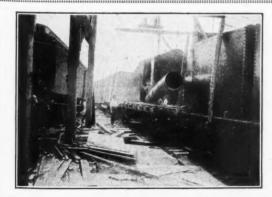
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WATER-WORKS, SUPPLIES, APPLI-WATER-WORKS, SUPPLIES, APPLIANCES.
American C. I. Pipe Co., Birmingham, AlaBourbon Copper & Brass Works Co., Cincinnati, O.
Coldwell-Wilcox Co., Newburgh, N. Y.
Columbian Iron Wks., Chattanooga, Tenn.
Cook, A. D., Lawrenceburg, Ind.
Giamorgan Pho & Edry. Co., Lynchburg, Va.
Hamburg, Park Works, Hamburg, Berks
County, Pa.
Michigan Pipe Co., Bay City, Mich.
Pacific Pipe & Tank Co., San Franciaco, Cal.
U. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J.
Wood & Co., B. D., Philadelphia, Pa.

WAX. (For Belts.) Cantol Wax Co., Bloomington, Ind.

WELDING. Blaw-Knox Co., Pittsburgh, Pa.

OXY-ACETYLENE. Sanborn & Co., W. T., Birmingham, Ala

WELDING APPARATUS.
ELECTRIC ARC.
General Electric Co., Schenectady, N. Y OXT-ACETTLENE.
Oxweld Acetylene Co., Newark, N. J.
Prest-O-Lite Co., The, New York, N. Y.
Sanborn & Co., W. T., Birmingham, Ala.

WELDING SUPPLIES. (Oxy-Acetylene.)
Prest-O-Lite Co., The. New York, N. Y.

Sydnor Pump & Well Co., Blehmond, Va.

Va. Machinery & Well Co., Richmond, Va.

American Steel & Wire Co., Chicago, Ill.

WELL TOOLS AND SUPPLIES. Cook, A. D., Lawrenceburg, Ind. Williams Bros., Ithaca, N. Y.

WHEEL PRESSES Caldwell & Co., E. R., Bradford, Pa.

WINCHES.
Hadfield-Penfield Steel Co., The, Bucyrus,
Ohio.

WINDLASSES.
Flory Mfg. Co., S., Bangor, Pa.
Hadfield-Penfield Steel Co., The, Bueyrus,
Ohio.

WINDOW FRAMES AND SASH. (Fire proofing.

Detroit Steel Products Co., Detroit, Mich.
Lupton's Sons Co., David, Phila., Pa.

Truscon Steel Co., Youngstown, O.

WINDOW GUARDS. Stewart Iron Wks. Co., Inc., Cincinnati, O.

WINDOW SASH. (Steel.)
Detroit Steel Products Co., Detroit, Mich.
Lupton's Sons Co., David, Phila., Pa.

WIRE.
ALL KINDS.
American Steel Co., Pittsburgh, Pa.
Ryerson & Son, Jos. T., St. Louis and
New York.

BARBED WIRE, ETC.
American Steel & Wire Co., Chicago, Ill
Guif States Steel Co., Birmingham, Als.
Youngstown Sheet & Tube Co., Youngstown, O.

FENCE.

American Fence Construction Co., New York, N. Y.

Cyclone Fence Co., Waukegan, Ill. FLAT AND ROUND.
Roebling's Sons Co., John A., Trenton, N.J.

GALVANIZED AND ANNEALED. American Steel Co., Pittsburgh, Pa. American Steel & Wire Co., Chicago, Ill Gulf. States Steel Co., Birmingham, Als

INSULATED.
Atlantic Electric Co., Norfolk, Va.
Habirshaw Electric Cable Co., Inc., The,
Yonkers, N. Y.

LIQUERED AND TINNED. American Steel Co., Pittsburgh, Pa

WIRE CLOTH. (Iron, Steel, Brass, etc. Caldwell & Son Co., H. W., Chiesgo, III.
International Nickel Co., The, New York,
N. Y.
Ludiow-Saylor Wire Co., St. Louis, Me.,
New Jersey Wire Cloth Co., Trenton, N. J
Wickwire-Spencer Steel Corp., Worsester
Mass.

WIRE GOODS. WIRE GOODS.

American Fence Construction Co., Non-York, N. Y.

Colone Fence Co., Wautegan, Ill.

Colone Fence Co., Wautegan, Ill.

Colone Fence Md.

Dufur, Baggot & Co., Baltimore, Md.

Gulf States Steel Co., Birmingham, Als.

New Jersey Wire Fence Co., Treaton, N. J.

Stimpson Co., Edwin B., Brooklyn, N. Y.

Ludlow-Saylor Wire Co., St. Louis, Ms. New Jersey Wire Fence Co., Trenton, N. J Wickwire-Spencer Steel Corp., Woresstee Mass. WIRE NETTING.

Gulf States Steel Co., Birmingham, Ala.

WIRE ROPE CLIPS. American Steel & Wire Co., Chicago, Ili. Broderick & Bascom Rope Co., St. Lewis

WIRING DEVICES. Atlantic Electric Co., Inc., Norfolk, Va

WOOD PIPE. (For Water, etc.) Michigan Pipe Co., Bay City, Mich. Pacific Tank & Pipe Co., San Francisco, Cal. Wyckoff & Son Co., A., Elmira, N. Y.

WOOD PRESERVATIVE.
Barrett & Co., New York, N. Y.
Du Pont Chemical Co., Wilmington, Des.
Protexol Corp., New York, N. Y.
S. P. F. Wood Preserving Co., Boston, Mass

WRENCH MANUFACTURERS. Lakeside Forge Co., Erie, Pa.

YARN. (Tarred Sisal.) Plymouth Cordage Co., N. Plymouth, Mass Whitlock Cordage Co., New York, N. Y.

ZINC.

CORRUGATED BAR.
V-CRIMP, FLAT SHRETS.
Amer. Zinc Products Co., Greenerstie, Inc.

#### Alphabetical Index of Advertisements

A-218136
A-219136
Abeles & Co., Chas. T 46
Abendroth & Root Mfg. Co
Acme Chimney Co 9
Air-Tight Steel Tank Co 62
Airveyor, The
Ajax-Elkhorn Coal Co 73
Alabama Company 34
Albright & Mebus
Aldrich Pump Co †
Allegheny Steel Co 35
Allen Engineering Co 162
Allen Eng. & Mfg. Co 58
Allis-Chaimers Mfg. Co 6
Allison, Walter A 67
Alpha Photo Engraving Co
American Appraisal Co 68
American-Blakeslee Mfg. Co. ‡
American Bridge Co 36
American Car & Fdry. Co ‡
American Cast Iron Pipe Co. 177
American Casting Co 53 American Cement Machine
Co., Inc †
American Cement Tile Mfg.
American Chain Co , Inc *
American Oreosote Wks, Inc. 48
American Elevator& Mch.Co. 49
American Enameled Brick & Tile Co
American Fence Construc-

•		
		•
American Frog & Switch Co. 152	Austin Machinery Corp ‡	Biggs Engineering Co., W. E. 67
American Limestone Co 163	Austin Mfg. Co 57	Billingsley, James W 67
American Pattern Works Co., †	Austin-Western Road Mchy.	Binney & Smith
American Process Co 56	00 ‡	Binswanger & Co 38
American Pulley Co	Awtrey, Orlando187	Bird & Son, Inc
American Railway Equip, Co. 151	В	Birmingham Clay Products Co
American Rolling Mill Co †	Babcock & Wilcox Co 8	Birmingham Realty Co136
American Sales Co 46	Baber, Henry H	Birmingham Rail & Loco. Co.153
		Birmingham Slag Co163
Amer. Sheet & Tin Plate Co.	Bacon & Sons, A. S 46	Black & Co
American Spiral Pipe Works †	Bailey-Lebby Co 18	Black & Veatch
American Steel Co	Baker Mfg. Co	Black, McKenney & Stewart., 68
American Steel & Wire Co 17	Baldwin Locomotive Works. 154	Blaw-Knox Co
American Telephone & Tele-	Bail Engine Co	Bliss Co., E. W 26
graph Co	Ballinger Co 69	Bluford & Co., I
American Water Softener Co. 13	Baltimore Belting Co †	Blystone Mfg. Co †
American Zinc Products Co . 51	Baltimore Builders Exchange	Boller Tube Co. of America. 9
Anchor Post Iron Wks 38	Bank of Alabama, The †	Bond Fdry. & Mch. Co
Anderson Co., V. D 63	Bannon Pipe Co	Bonney Supply Co166
Anderson-Hunter Con. Co 1	Barber Asphalt Paving Co †	Boos Machine Co
Archer & Co. E. F 67	Barnes Mfg. Co t	Booth Felt Co 9
Arctic Ice Machine Co 12	Barnett Co., G. & H	Borne, Scrymser Co †
Armco Culvert & Flume Mfrs.	Barnhart Bros. and Spindler. 53	Bound Brook Oil-less Bearing
Assn170	Barrett Company123	Co 20
Armstrong Mfg. Co 11	Bartlett & Snow Co., C. O †	Bourbon Copper & Brass Wks.
Arnold Co., Victor H129	Basic, Va	Box & Co., Inc., Alfred 22
Arundei Corporation163	Bauer Bros. Co	Boxley & Co., W. W
Ashland Fire Brick Co 14 Ashland Iron & Mining Co 31	Bay City Dredge Works 159	Brecht Co
	Belmont Iron Works 36	Brew, William P
Atkins & Co., E. C., Inc * Atlanta Bolt & Steel Products	Bender Iron & Supply Co., S.147	Briddell Co. Inc., W. C152
Co	Benjamin Equip. Co., Harry151	Brier Hill Steel Co 30
Atlanta Terra Cotta Co 45	Berkshire Electric Co142	Broderick & Bascom Rope
Atlantic Elec. Co	Berry Bros ‡	Co
Atlantic, Gulf & Pacific Co., 159	Bessemer Gas Engine Co *	Brooks Supply Co147
Atlas Portland Cement Co164	Bethlehem Steel Co 32	Bryan Pattern & Mach. Co 53
Atlas Powder Co161	Big Six Installing Service Co. 66	Buchanan Co., Inc., C. G 57
	-	

	00 4
	Awtrey, Orlando,137
	В
	Babcock & Wilcox Co 8
	Baber, Henry H153
	Bacon & Sons, A. S 46
	Bailey-Lebby Co 18
	Baker Mfg. Co
	Baldwin Locomotive Works. 154
	Ball Engine Co
	Ballinger Co 69
	Baltimore Belting Co †
	Baltimore Builders Exchange "
	Bank of Alabama, The †
	Bannon Pipe Co., 176
	Barber Asphalt Paving Co †
	Barnes Mfg. Co ‡
	Barnett Co., G. & H 76
ŀ	Barnhart Bros. and Spindler. 53
	Barrett Company123
ì	Bartlett & Snow Co., C. O †
	Basic, Va136
	Bauer Bros. Co
	Bay City Dredge Works 159 Belmont Iron Works 36
	Bender Iron & Supply Co., S.147
	Benjamin Equip. Co., Harry151
	Berkshire Electric Co142
	Berry Bros ‡
,	Bessemer Gas Engine Co *
	Bethlehem Steel Co 32
ı	Big Six Installing Service Co. 66

Austin Machinery Corp 1	Biggs Engineering Co., W. E. 6:	Duckeye Blower Co 48
Austin Mfg. Co 57	Billingsley, James W 67	Buckeye Iron & Brass Works. 1
Austin-Western Road Mchy.	Binney & Smith 17	Buckeye Machine Co 5
	Binswanger & Co 38	Buckeye Traction Ditcher 1
Awtrey, Orlando187	Bird & Son, Inc	Bucyrus Co 158
R	Sirmingham Clay Products	Buffalo Forge Co
		Buffalo Springfield Roller Co. 166
Babcock & Wilcox Co 8		Burch Plow Works Co \$
Baber, Henry H153		Burgess & Co., D. H
Bacon & Sons, A. S 46		Burruss Engineering Co 63
Bailey-Lebby Co 18		Busch-Sulzer Bros. Diesel Engine Co
Baker Mfg. Co166		Byers Mch. Co.,
Baldwin Locomotive Works 154		Byllesby Eng. & Management
Bail Engine Co		Corp 67
Ballinger Co		
Baltimore Belting Co †	Blystone Mfg. Co †	C
Baltimore Builders Exchange *	Boiler Tube Co. of America. 9	Cabot, Inc. Samuel ‡
	Bond Fdry. & Mch. Co *	Caldwell & Co., E. R
Bannon Pipe Co.,	Bonney Supply Co166	Caldwell Co., Inc., W. E 21
Barber Asphalt Paving Co †	Boos Machine Co *	Caldwell & Son Co., H. W
Barnes Mfg. Co t	Booth Felt Co 9	Calhoun Mchy, Exchange 142
Barnett Co., G. & H 76	Borne, Scrymser Co †	Cambria Clay Products Co 14
Barnhart Bros. and Spindler, 53	Bound Brook Oil-less Bearing	Cambria Steel Co 1
Barrett Company123		Camp. W. H 63
Bartlett & Snow Co., C. O †	Co	Capnelton Sewer Pipe Co 14
Basic, Va136	Box & Co., Inc., Alfred 22	Cantol Wax Co 18
Bauer Bros. Co 63	Boxley & Co., W. W	Canton Art Metal Co 1
	Brecht Co	Capital Lift & Mfg. Co., The 49
Belmont Iron Works 36	Brew, William P	Carborundum Co †
	Briddell Co. Inc., W. C 152	Cardwell Machine Co., The. 63
	Brier Hill Steel Co 30	Carey Co., Thos. F148
	Broderick & Bascom Rope	Carlisle, Aiken R 66
		Carlyle-Labold Co 48
		Carolina, Clinchfield & Ohio
		Ry 1
Big Six Installing Service Co. 66	Buchanan Co., Inc., C. G 57	Carolina Engineering Co 66
	Austin Mfg. Co. 57 Austin Mfg. Co. 57 Austin Western Road Mchy. Co. 18 Babcock & Wilcox Oo. 8 Babcock & Wilcox Oo. 18 Babcock & Wilcox Oo. 18 Babcock & Wilcox Oo. 18 Babcon & Sons. A. S. 46 Bailey-Lebby Co. 18 Baker Mfg. Co. 166 Baildwin Locomotive Works. 154 Bail Engine Co. 167 Baillinger Co. 69 Bailtimore Builders Exchange Bank of Alabama, The. † Bannon Pipe Co. 176 Barber Asphait Paving Co. † Barnett Co. 6, & H 76 Barnhart Bros. and Spindler. 53 Barriett & Sonw Co., C. 0, † Basic Va. 136 Bauer Bros. Co. 63 Bay City Dredge Works. 154 Bay City Dredge Works. 158	Austin Mfg. Co. 67 Austin-Western Road Mchy. 70. 60. 4 Awtrey, Orlando. 187 B B Baber Henry H. 153 Bacon & Sons. A. 8 46 Bailey-Lebby Co. 188 Baker Mfg. Co. 168 Baldwin Locomotive Works. 154 Ball Engine Co. 669 Baltimore Beiting Co. 67 Baltimore Beiting Co. 69 Barbor Asphalt Paving Co. 69 Barnes Mfg. Co. 168 Barnes Mfg. Co. 69 Barnes Mfg. Co. 60 Barnes Mfg. Co. 69 Barnes Mfg. Co. 60 Barnes Mfg. Co.

***************************************
Buckeye Blower Co 48
Buckeye Iron & Brass Works. 1
Buckeye Machine Co 5
Buckeye Traction Ditcher 1
Bucyrus Co 158
Buffalo Forge Co
Buffalo Springfield Roller Co. 166
Burch Plow Works Co \$
Burgess & Co., D. H †
Burruss Engineering Co 63
Busch-Sulzer Bros. Diesel Engine Co
Byers Mch. Co 159
Byllesby Eng. & Management Corp
С
C Cabot, Inc. Samuel ‡
•
Cabot, Inc. Samuel ‡
Cabot, Inc. Samuel ‡ Caldwell & Co., E. R 63
Cabot, Inc. Samuel

Į

8.

ıl.

63 59 67

‡ 66

	Cummings Machine Co154	Fidelity & Deposit Co. of Md.	Hill Fdry. Supply Co., John., †	Laclede Steel Co 1
Carron to Cont	Curtis Bay Copper & Iron	First Nat'l Bank of Birming- ham, Ala	Hires Turner Glass Co 38 Hitner's Sons Co., Henry A.149	Lakewood Engineering Co
Carter, Oliver	Works69	First Nat. Bank, Richmond,	Hochstadter Laboratories 66	The
Oary Mfg. Co	Curtis-Willis Co., Inc145	Va	Hoffman & Co.Inc., R.C 54	Lancaster Iron Works, Inc
Castle & Wilson142	Cutler Mail Chute Co 43	Fisher Leather Belting Co., Inc., The 18	Hoisting Engine Sales Co 148	Lane Equipment Co., T. J. 18
Central Coal & Coke Co 47	Cyclone Fence Co ‡	Fleet-McGinley Co	Holsting Machinery Co148	Lane Mfg. Co
Central Fdry. Co., The177	_	Flory Mfg. Co., S	Holt Mfg. Co ‡	Lee Trailer & Body Co 16
Central of Georgia Railway 136	D	Food Gas Engine Co	Hood Brick Co., B. Mifflin 44	Lee, Wm. S
Central Pipe & Sup. Co147	Dahistrom Metallic Door Co. †	Ford, Bacon & Davis 67	Hornblower & Weeks129	Leffel & Co., James 17 Lehman, Chas. T
Ohain Beit Co ‡	Dake Engine Co 188	Ford Chain Block Co 22	Metal Works ‡	Leighton & Co., M. O
Chalmers Pump & Mfg. Co171	Danzer Metal Works 42	Fordyce, John R	Houston Railway Car Co151	Lenderking, Philip H
Chaimers & Williams, Inc 56 Chamberlain & Co., Lawrence, 129	Dart Mfg. Co., E. M 11	Fort Worth Laboratories *	Houston, Stanwood & Gamble	Letson Co., T. H
Champion Bridge Co 36	Davis, J. F	Foundation Company 68 Fouts Co., The C. C 60	Co 6	Levis & Co., Henry 14
	Davis & Son, G. M	Frank. M. K	Howard Refractories Co 14	Lewis, Frederick H (
	Davison Chemical Co 58 Day & Zimmermann, Inc 67	Freeborn Engineering Corp.	Hubbard-Floyd Co., Inc150	Liberty Blow Pipe Works
Charleston Dry Dock & Ma-	Dayton-Dowd Co	F. W 67	Hunt & Co., Robert W 68	Lide, Martin J
chine Co 6	Dean Bros. Steam Pump Wks 172	Freeland, Roberts & Co 66	Hunt Eng. Co	Lidgerwood Mfg. Co1
Charleston Industrial Corp	De Laval Steam Turbine Co172	Freeport Sulphur Co 59	Hyatt Roller Bearing Co 3	Light Railway Equipment Co. 1
	De La Vergne Mch. Co 4	Freese & Co., E. M 43	Hyde & Co	Link-Belt Co 1
Chattanooga Armature Wks 17	Delaware Registration Trust	French Oil Mill Mchy. Co	Hydraulic Steelcraft Co 28	Liquid Despatch Line
Chattanooga Boiler & Tank	Co129	Frick Co	Hyman-Michaels Co152	Lockett & Co., A. M
00 62	Delta Equipment Co147	Froehling & Robertson 66		Lockwood, Greene & Co
Unattanooga Paint Co 42	Detroit Graphite Co ‡	Fuller Co., Geo., A 32 Fuston & Van Valkenburgh 69		Lombard Iron Works & Sun.
Ohattanooga Road Mchy. Co 170	Detroit Steel Products Co 39	Fusion & van vankenburgh oo		ply Co
Chemical Const. Co 68	Dismond State Piles Co. 60		Ideal Concrete Machinery Co. 2	Long Bell Lumber Co
Ohempeake Belting Co 18	Diamond State Fibre Co 60 Dietrich Bros	G	Imperial Refining Co 24	Long Co., The M. A
Ohicago Bridge & Iron Works 22	Dillen Supply Co147	Gale Sand Co †	Indestructible Sign Co ‡ Indiana Limestone Quarry-	Lookout Boiler & Mfg. Co., The
	Dilts Machine Works142	Gannett, Seelye & Fleming 66	men's Asso 44	Loyd, R. A.
Chicago Watchman's Clock	Dixie Brass & Foundry Co 52	Gardner Governor Co ‡	Industrial Engineering Co139	Ludlow Engineers, The
Works178	Dixie Engineering & Insulat-	Gardner & Howe 66	Industrial Lumber Co †	Ludlow-Saylor Wire Co
Ohristle Co., L. R 56	ing Co 66	Garrett & Son Corp., C. S 43	Ingalls Iron Works Co., The 36	Ludlow Valve Mfg. Co1
Church & Dwight Co 48	Dixie Portland Cement Co165	Gaso Pump & Burner Mfg. Co. 10	Ingersoll-Rand Co 173	Ludowici-Celadon Co
Gincinnati Fly Screen Co *	Dixon Crucible Co., Jos 42	General Electric Co ‡	International Conveyer Corp. 69	Lufkin Rule Co
Cincinnati Frog & Switch Co. 153	Domestic Engine & Pump Co.172	General Engineering & Con- struction Co	International Filter Co	Lukens Steel Co
Gincinnati Iron & Steel Co 35	Dorman Co., J. F. W	General Machinery & Supply	International Nickel Co., The 35	Lunkenheimer Co
Olark & Krebs 66	Doubleday-Hill Elec. Co † Dougherty Co., M. J 1	Co139	International Pipe & Supply Co151	Lupton's Sons Co., David
Olassified Opportunities 134, 135	Douthat-Riddle Co168	Georgia Car & Loco. Co150	International Steel & Iron Co. 36	Luten, Daniel B
Oleveland Belting & Mchy. Co. 148	Downingtown Iron Works 60	Georgia-Carolina Brick Co145	International Time Record-	
Olimax Mfg. Co	Dow & Smith	Giant Grip Mfg. Co t	ing Co 27	M
Olinchfield Portland Cement	Dow Wire & Iron Wks., Inc 76	Gibbs, Jr., George W,149	Interstate Brick & Tile Corp 138	
Corp165	Braper Corporation 76	Gibson & Lewis 69	Interstate Machinery Corp	McCalla Co., Harold
Cochran, J. H	Draper, E, S 68	Glamorgan Pipe & Fdry. Co 177	Iroquois Tool & Stamping	McClave-Brooks Co
Cohen & Son, Louis152	Druid Oak Belting Co 18	Goldens' Fdry. & Mch. Co 20 Good Roads Machinery Co	Irving Iron Works Co	McClintic-Marshall Co
Ooldwell-Wilcox Co170	Dufur, Baggott & Co 38	Gordon Metal Co	tiving tron worse co	McCoy Brandt Machinery 1
Cole Mfg. Co 46  Cole Mfg. Co R. D 62	Dufur & Co 38	Grainger & Co ‡	1	McCrary Co., J. B
	Duncan, James H ‡		-	
Collins Granite Co162	Dunning & Boschert Press Co. *	Grant Supply Co., Chas. J147 Great Southern Lumber Co 1	Jaeger Mach. Oo167	McDevitt-Fieming Co
	Dunning & Boschert Press Co. * Du Pont Chemical Co ‡	Grant Supply Co., Chas. J147 Great Southern Lumber Co 3 Green Fire Brick Co., A. P 14	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.         162           Collins, S. M.         67	Dunning & Boschert Press Co. *	Grant Supply Co., Chas. J147 Great Southern Lumber Co 1 Green Fire Brick Co., A. P 14 Greenville Iron Works, The 52	Jaeger Mach. Oo.         167           James Supply Co.         18           Janney & Co.         *	McDevitt-Fleming Co McDonald-Churchill Corp
Collins Granite Co.       .162         Collins, S.	Dunning & Boschert Press Co. * Du Pont Chemical Co \$ Du Pont de Nemours, E.I 160	Grant Supply Co., Chas. J147 Great Southern Lumber Co 1 Green Fire Brick Co., A. P 14 Greenville Iron Works, The 52 Gregory Electric Co142	Jaeger Mach, Co.         .167           James Supply Co.         .18           Janney & Co.         *           Jeffrey Mig. Co.         *	McDevitt-Fieming Co
Collins Granite Co.	Dunning & Boschert Press Co. * Du Pont Chemical Co ‡	Grant Supply Co., Chas. J147 Great Southern Lumber Co 1 Green Fire Brick Co., A. P 14 Greenville Iron Works, The 52 Gregory Electric Co	Jaeger Mach. Co.       .167         James Supply Co.       .18         Janney & Co.       .8         Jeffrey Mfg. Co.       .9         Jemison, Walter R.       .189	McDevitt-Fieming 00
Collins Granite Co.       .162         Collins, S. M.       67         Colonial Charter Co.       .128         Colonial Supply Co.       .21         Colombial From Works Co.       .178         Columbian Rope Co.       .162         Columbian Conveyor Co.       .162	Dunning & Boschert Press Co. * Du Pont Chemical Co \$ Du Pont de Nemours, E.I 160	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.       .162         Collins, S. M.       .67         Colonial Charter Co.       .128         Colonial Supply Co.       .21         Columbia Iron Works Co.       .178         Columbia Kope Co.       .5         Columbus Conveyor Co.       .162         Columbus Forge & Iron Co.       .62	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J	Jaeger Mach. Co.       .167         James Supply Co.       .18         Janney & Co.       .8         Jeffrey Mfg. Co.       .9         Jemison, Walter R.       .189	McDevitt-Fieming Co McDonald-Churchill Corp McEwen Lumber Co McEwen Mfg. Co McGowan Co., John H
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Oo
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J	Jaeger Mach. Co.         167           James Supply Co.         18           Janney & Co.         *           Jeffrey Mig. Co.         *           Jemison, Walter R.         189           Jemison Real Estate & Ins. Co. 129           Jenkins Bros         10	McDevitt-Fieming Co
Collins Granite Co	Dunning & Boschert Press Co.   2   Du Pont Chemical Co.   2   Du Pont de Nemours, E. I.   160	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co McDonald-Churchill Corp McEwen Lumber Co McEwen Mig. Co McGowan Co., John H
Collins Granite Co	Dunning & Boschert Press Co.   2 Du Pont Chemical Co.   2 Du Pont de Nemours, E. I.   160	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co	Dunning & Boschert Press Co.   2   Du Pont Chemical Co.	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.   162	Dunning & Boschert Press Co.   2 Da Pont Chemical Co.   3 Da Pont de Nemours, E. I.   160	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.   162	Dunning & Boschert Press Co.   2   Du Pont Chemical Co.	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co ; Du Pont de Nemours, E. I 160  E  Earle Gear & Muchine Co 171 E.co Clock Co 178 Edison Storage Battery Co. ; Edwards Mfg. Co 61 Egli, H 66 Elchleay Jr. Co., John 37 Electric Bond & Share Co 129 Electric Controller & Mfg. Co 61 Electric Heating & Mfg. Co 5 Electric Heating & Mfg. Co 5 Electric Heating & Mfg. Co 5 Electric Welding Co ; Electric Welding Co 5 Electric Welding Co 138	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co  McDonald-Churchill Corp.  McEwen Lumber Co  McGewan Co., John H  McKee & Co., Arthur G  McKee & Co., Arthur G  McLanahan-Stone Mcb Co  McLean, Chas. A  McLean Contracting Co  McMeans & Tripp  McMillan, A
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co ; Du Pont de Nemours, E. I 160  E  Earle Gear & Munchine Co 171 E.co Clock Co 178 Edison Storage Battery Co. ; Edwards Mfg. Co 61 Egli, H 66 Elchleay Jr. Co., John 37 Electric Bond & Share Co 129 Electric Controller & Mfg. Co 61 Electric Heating & Mfg. Co 5 Electric Heating & Mfg. Co 5 Electric Welding Co ; Electric Welding Co ; Electric Welding Co 188 Ellicott Machine Corp 188 Ellicott Machine Corp 189 Ellis, Frank I 69 Elphinstone, D. C 148	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo 1 Green Fire Brick Co., A. P., 144 Greenville Iron Works, The 52 Gregory Electric Co. 142 Griffith, Jas. F., 147 Grinneil Co., 196 Grunewald Hotel Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 68 Grunewald Hotel Co., 24 Guif States Portland Cement Co., 24 Guif States Portland Cement Co., 69 Guif Refining Co., 24 Guif States Steel Co., 154 Habirshaw Electric Cable Co., 154 Haiss Mfg. Co., Geo., 167 Hall & Sons, B. M., 66 Hamburg Boiler Works., 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 44 Hamond Heating Co., 44 Hammond Heating Co., 47	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co ; Du Pont de Nemours, E. I 160  E  Earle Gear & Machine Co 171 E.:o Clock Co 178 Eddson Storage Battery Co. † Edwards Mfg. Co 61 Egli, H 66 Elchiesy Jr. Co. John 37 Electric Bond & Share Co 129 Electric Controller & Mfg. Co. * Electric Furnace Construction Co 62 Electric Heating & Mfg. Co. * Electric Heating & Mfg. Co. * Electric Borage Battery Co 12 Electric Welding Co * Electric Blorage Battery Co 15 Electric Blorage Battery Co 15 Electric Blorage Battery Co 15 Ellectric Machine Corp 159 Ellis, Frank I 69 Elphinstone, D. C 148 Elston & Co 128	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo. 1 Green Fire Brick Co., A. P., 144 Greenville Brick Co., A. P., 144 Greenville Iron Works, The. 52 Gregory Electric Co. 142 Griffith, Jas. F., 147 Grinnell Co., 196 Grunewald Hotel Co., 66 Guarantee Construction Co., 2 Gulfport Creescting Co., 48 Gulf Refining Co., 24 Gulf States Portiand Cement Co., 6 Gulf States Steel Co., 154 Habirshaw Electric Cable Co., 2 Hadfield-Penfield Steel Co., 154 Haiss Mfg. Co., Geo., 167 Hahi & Sons, B. M., 66 Hamburg Boiler Works., 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 40 Hanchett Bond Co., 40 Hanchett Bond Co., 47	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co ; Du Pont de Nemours, E. I 160  Earle Gear & Machine Co 171 E.: o Clock Co 178 Edison Storage Battery Co. ; Edwards Mfg. Co 61 Egil, H 66 Eichleay Jr. Co., John 37 Electric Controller & Mfg. Co 28 Electric Controller & Mfg. Co 55 Electric Furnace Construction Co 35 Electric Heating & Mfg. Co 28 Electric Bond & Mfg. Co 28 Electric Bond & Mfg. Co 28 Electric Bond & Mfg. Co 35 Electric Bond & Mfg. Co 38 Electric Bond & Mfg. Co 38 Electric Bondage Battery Co 38 Electric Bondage Battery Co 38 Electric Bondage Battery Co 38 Ellectric Bondage Battery Co 38 Ellectric Heating & Mfg. Co 48 Ellectric Machine Corp 138 Ellilo Edwards Mg. I 69 Elphinstone, D. C 148 Elston & Co 148 Elston & Co 129 Emerson Pump & Valve Co 129	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co	Dunning & Boschert Press Co. * Da Pont Chemical Co † Da Pont de Nemours, E. I   160  E  Earle Gear & Manchine Co   171 E20 Clock Co   178 Edison Storage Battery Co. † Edwards Mfg. Co   61 Egli, H   66 Elchieay Jr. Co., John   37 Electric Bond & Share Co   129 Electric Controller & Mfg. Co. * Electric Furnace Construction Co   35 Electric Heating & Mfg. Co   48 Electric Welding Co   5 Electric Welding Co   18 Elictric Manchine Corp   159 Ellis, Frank I   69 Elphinstone, D. C   148 Elston & Co   129 Emerson Pump & Valve Co.   17 Empire Mchy. & Supply Corp. 17	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo 1 Green Fire Brick Co., A. P., 14 Greenville Iron Works, The 52 Gregory Electric Co. 142 Griffith, Jas. F., 147 Grinneil Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 68 Guif Refining Co., 24 Guif States Portland Cement Co., 24 Guif States Steel Co., 25 Hadfield-Penfield Steel Co., 154 Eniss Mfg. Co., Geo., 167 Enit & Sons, B. M., 66 Hamburg Boiler Works, 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 40 Hanchett Bond Co., 4 Hardie-Tynes Mfg. Co., 4 Hardie-Tynes Mfg. Co., 4 Hardie-Tynes Mfg. Co., 4 Hardinge Bros., Inc., 178	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo 1 Green Fire Brick Co., A. P., 14 Greenville Iron Works, The 52 Gregory Electric Co. 142 Griffith, Jas. F., 147 Grinneil Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 68 Griffith, Jas. F., 147 Grinneil Co., 68 Grunewald Hotel Co., 68 Grunewald Hotel Co., 68 Grunewald Hotel Co., 154 Griff Refining Co., 24 Griff States Portland Cement Co., 69 Griffith States Portland Cement Go., 154 Habirshaw Electric Cable Co., 154 Hais Mig. Co., Geo., 167 Hall & Sons, B. M., 66 Hamburg Boiler Works., 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 40 Hanchett Bond Co., 8 Hardie-Tyroe Mig. Co., 44 Hardinge Bros., Inc., 178 Harrington & King Perforst- ing Co., 859	Jaeger Mach. Co	McDevitt-Fieming Co
Collins Granite Co	Dunning & Boschert Press Co. * Da Pont Chemical Co † Da Pont de Nemours, E. I   160  E  Earle Gear & Manchine Co   171 Ezo Clock Co   178 Edison Storage Battery Co. † Edwards Mfg. Co   61 Egli, H   66 Elchieay Jr. Co., John   37 Electric Bond & Share Co   129 Electric Controller & Mfg. Co. * Electric Furnace Construction Co   35 Electric Heating & Mfg. Co   48 Electric Biorage Battery Co   18 Ellictric Manchine Corp   18 Ellictric Manchine Corp   18 Ellictric Manchine Corp   18 Ellis, Frank I   69 Elphinstone, D. C   148 Elston & Co   198 Emerson Pump & Valve Co.   17 Empire Mchy. & Supply Corp. 18 Empire Refineries, Inc   24 Engineering Saies Co   186 Engineering Saies Co   186 Engineering Service Bureau.   186	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo. 1 Green Fire Brick Co., A. P., 144 Greenville Brick Co., A. P., 144 Greenville Iron Works, The. 52 Gregory Electric Co. 142 Griffith, Jas. F. 147 Grinnell Co., 196 Grunewald Hotel Co., 65 Grunewald Hotel Co., 65 Grunewald Hotel Co., 65 Grunewald Hotel Co., 24 Gulf Refining Co., 24 Gulf States Portiand Cement Co., 6 Gulf States Steel Co., 154 Habirshaw Electric Cable Co., 154 Haiss Mfg. Co., Geo., 167 Hail & Sons, B. M., 66 Hamburg Boller Works., 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 40 Hardinge Bros., Inc., 178 Harrington & King Perforating Co., 84 Harrington & King Perforating Co., 184 Harrington & King Perforating Co., 185 Harris Bros., Co., 185	Jaeger Mach. Co	McDevitt-Fieming Co  McDonald-Churchill Corp.  McEwen Lumber Co  McGewan Co., John H  McKee & Co., Arthur G  McKee & Co., Arthur G  McLanahan-Stone Mcb Co  McLanahan-Stone Mcb Co  McLean, Chas. A  McLean Contracting Co  McMeans & Tripp  McMillan, A  McMyler Interstate Co  McNair Lumber Co  Machinery Clearing House Corp.  Mailor, J. M  Mallory, L. E  Mallory, L. E  Mallory, L. C  Manistee Iron Works Co  Maning, Maxwell & Moore, In  Marion Steam Shovel Co
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J., 147 Great Southern Lumber Co 1 Green Fire Brick Co., A. P., 14 Greenville Iron Works, The 52 Gregory Electric Co 142 Griffith, Jas. F., 147 Grinneil Co 196 Grunewald Hotel Co 66 Grunewald Hotel Co 66 Guarantee Construction Co 12 Gulfport Greesoting Co 48 Gulf Refining Co 24 Gulf Refining Co 25 Gulf States Portland Cement Co 8 Habirshaw Electric Cable Co 154 Haiss Mfg. Co 167 Halis Mfg. Co 167 Hali & Sons, B. M 66 Hamburg Boiler Works 171 Hammond Byrd Iron Co 177 Hammond Heating Co 40 Hardinge Bros., Inc 178 Harrington & King Perforst- ing Co 59 Harris Bros. Co 145	Jaeger Mach. Co	McDevitt-Fieming Co.  McDonald-Churchill Corp.  McEwen Lumber Co.  McGwan Co., John H.  McKee & Co., Arthur G.  McKen Aco., Arthur G.  McLanahan-Stone Mcb Co.  McLanahan-Stone Mcb Co.  McLean Contracting Co.  McLean Contracting Co.  McMeans & Tripp  McMillan, A.  McMyler Interstate Co.  McMillans Dredging Co.  Machinery Clearing House  Corp.  Mailory, L. E.  Mallory, L. E.  Mallory, L. E.  Mallory, L. E.  Manning, Maxwell & Mcore, Inc.  Manning, Maxwell & Mcore, Inc.  Marine Metal & Sup. Co. 139,
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo. 1 Green Fire Brick Co., A. P., 144 Greenville Iron Works, The., 52 Gregory Electric Co., 142 Griffith, Jas. F., 147 Grinneil Co., 196 Grunewald Hotel Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 68 Guarantee Construction Co., 24 Guif States Portland Cement Co., 24 Guif States Portland Cement Co., 148 Habirshaw Electric Cable Co., 154 Hasis Mfg, Co., Geo., 167 Half & Sons, B. M., 66 Hamburg Boller Works., 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 40 Hanchett Bond Co., 4 Harding-Bros., Inc., 178 Harrington & King Perforst Ing Co., 184 Harting Bros., Co., 145 Hart Stros., Co., 145 Hart Cotton Machine Co., 154 Hart Cotton Machine Co., 154 Hartle Boller Works., 66	Jaeger Mach. Co	McDevitt-Fieming Co.  McDonald-Churchill Corp.  McEwen Lumber Co.  McEwen Mig. Co.  McGewan Mig. Co.  McGewan Mig. Co.  McGeowan Co., John H.  McKee &Co., Arthur G.  McKlaney Mig. Co.  McLean Chas. A.  McLean Contracting Co.  McLean Contracting Co.  McMellan A.  McMyler Interstate Co.  McMillan Dredging Co.  Machinery Clearing House Corp.  Main, Chas. T.  Mailory, J. M.  Mallory, J. M.  Mallory, J. M.  Mallory Mchy. Corp.  Manasota Lumber Corp.  Manasota Lumber Corp.  Manasota Lumber Corp.  Manning, Maxwell & Moore, Inc.  Marine Bank & Trust Co.  Marine Metal & Sup. Co. 199,  Marine Metal & Sup. Co. 199,  Marine Steam Shovel Co.  Martin Mehry. Co., E. A.
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J., 147 Great Southern Lumber Co 1 Green Fire Brick Co., A. P., 14 Greenville Iron Works, The 52 Gregory Electric Co 142 Griffith, Jas. F., 147 Grinneil Co 196 Grunewald Hotel Co 66 Grunewald Hotel Co 66 Guarantee Construction Co 12 Gulfport Greesoting Co 48 Gulf Refining Co 24 Gulf Refining Co 25 Gulf States Portland Cement Co 8 Habirshaw Electric Cable Co 154 Haiss Mfg. Co 167 Halis Mfg. Co 167 Hali & Sons, B. M 66 Hamburg Boiler Works 171 Hammond Byrd Iron Co 177 Hammond Heating Co 40 Hardinge Bros., Inc 178 Harrington & King Perforst- ing Co 59 Harris Bros. Co 145	Jaeger Mach. Co	McDevitt-Fieming Co  McDonald-Churchill Corp.  McEwen Lumber Co  McGewan Co., John H  McKee & Co., Arthur G  McKen Mfg. Co  McLean Co., Arthur G  McLean Contracting Co  McLean Contracting Co  McMeans & Tripp  McMillan, A  McMeyler Interstate Co  McNair Lumber Co  Machinery Clearing House Corp.  Mailor, J. M  Mallory, L. E  Mallory, J. M  Mallory, J. M  Mallory, L. E  Mallory, Mallory, L. E  Mallory, Manasota Lumber Corp  Manasota Lumber Corp  Manasota Lumber Corp  Manasota Lumber Corp  Maniner, Maxwell & Mcore, I  Marine Bank & Trust Co 131, Marine Bank & Trust Co 134, Marine Metal & Sup. Co  Marine Bank & Trust Co 134, Marine Metal & Sup. Co  Marine Marine Mco L. A  Marine Metal & Sup. Co  Marine Marine Co L. A  Marine Mery, Co., E. A  Maryland Pipe Supply Co
Collins Granite Co	Dunning & Boschert Press Co. * Du Font Chemical Co † Du Font Chemical Co † Du Font de Nemours, E. I 160  Earle Gear & Machine Co 171 E.: 0 Clock Co 178 Eddson Storage Battery Co. † Eddson Storage Battery Co. † Eddson Storage Battery Co. † Edwards Mfg. Co 61 Egil, H 66 Elchiesy Jr. Co. John 37 Electric Bond & Share Co 129 Electric Controller & Mfg. Co. * Electric Furnace Construction Co 62 Electric Furnace Construction Co 63 Electric Heating & Mfg. Co. * Electric Heating & Mfg. Co. * Electric Borage Battery Co 15 Electric Borage Battery Co 15 Electric Borage Battery Co 16 Electric Welding Co 69 Ellicott Machine Corp 159 Ellis, Frank I 69 Ellis, Frank I 69 Elphinstone, D. C 148 Elston & Co 129 Emerson Pump & Valve Co 17 Empire Mchy, & Supply Corp. 18 Empire Refineries, Inc 24 Engineering Sarvice Bureau 136 Erdle Perforating Co 59 Erle Machine Stope 56	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo. 1 Green Fire Brick Co., A. P., 14 Greenville Iron Works, The. 52 Gregory Electric Co. 142 Griffith, Jas. F., 147 Grinnell Co., 96 Grunewald Hotel Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 24 Griff Refaining Co., 25 Habirshaw Electric Cable Co., 58 Habirshaw Electric Cable Co., 154 Hais & Sons, B. M., 66 Hamburg Boiler Works., 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 40 Hanchett Bond Co., 4 Hardinge Bros., Inc., 178 Harrington & King Perforsting Co., 168 Hartley Boiler Works., 66 Hauser-Stander Tank Co., 61 Hawley, Chas. B., 66 Hayton Pump & Blower Co., 172	Jaeger Mach. Co	McDevitt-Fieming Co  McDonald-Churchill Corp  McEwen Lumber Co  McGewan Mfg. Co  McGewan Co., John H  McKee & Co., Arthur G  McKanney Mfg. Co  McLean Co., Arthur G  McLean Contracting Co  McLean Contracting Co  McMillan, A  McMillan, A  McMillans Dredging Co  Machinery Clearing House Corp.  Mailory Corp  Mailory L. E  Mallory Mchy. Corp  Manning Many Corp  Manning Many Corp  Manning, Maxwell & Mcore, Inc  Marine Bank & Trust Co  Marine Metal & Sup. Co
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo. 1 Green Fire Brick Co., A. P., 14 Greenville Brick Co., A. P., 14 Greenville Iron Works, The. 52 Gregory Electric Co. 142 Griffith, Jas. F. 147 Grinnell Co., 196 Grunewald Hotel Co., 66 Guarantee Construction Co., 2 Gulfport Creceoting Co., 48 Guif Refining Co., 24 Guif States Portiand Cement Co., 6 Guif States Steel Co., 154 Habirshaw Electric Cable Co., 154 Haiss Mfg. Co., Geo., 167 Hahiss Mfg. Co., Geo., 167 Hahiss Mfg. Co., 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 40 Hardie-Tynes Mfg. Co., 4 Hardinge Bros., Inc., 178 Harrington & King Perforsting Co., 185 Harrington & King Perforsting Co., 185 Harrington & King Perforsting Co., 185 Harring Boller Works., 171 Harrington & King Perforsting Co., 185 Harrington & King Perforsting Co., 185 Harring Boller Works., 166 Hayton Pump & Blower Co., 161 Hawley, Chas. B., 66 Hayton Pump & Blower Co., 172 Hayward Co., 161 Hayward Co., 161 Hawley, Chas. B., 66 Hayton Pump & Blower Co., 172 Hayward Co., 161 Hawley, Chas. B., 66	Jaeger Mach. Co	McDevitt-Fieming Co  McDonald-Churchill Corp.  McEwen Lumber Co  McGewan Co., John H  McKee & Co., Arthur G  McKee & Co., Arthur G  McLaan, Chas. A  McLean, Chas. A  McLean, Chas. A  McLean Contracting Co  McMens & Tripp  McMillan, A  McMyler Interstate Co  Mc Nair Lumber Co  Machinery Clearing House Corp.  Mail, Chas. T  Mallory, J. M  Mallory, J. M  Mallory, J. M  Mallory, L. E  Manistee Iron Works Co  Manistee Iron Works Co  Marine Bank & Trust Co  Marine Bank & Trust Co  Marine Bank & Trust Co  Marine Steam Shovel Co  Martin McHayl Co  Masters Builders Co., The
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo. 1 Green Fire Brick Co., A. P., 14 Greenville Iron Works, The., 52 Gregory Electric Co., 142 Griffith, Jas. F., 147 Grinneil Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 68 Grunewald Hotel Co., 68 Grunewald Hotel Co., 68 Grunewald Hotel Co., 18 Griffith, 18 Griffith, 18 Griffith, 18 Habirshaw Electric Cable Co., 24 Griff States Portland Cement Co., 69 Griffith, 18 Habirshaw Electric Cable Co., 18 Hadfield-Penfield Steel Co., 184 Haiss Mfg. Co., Geo., 167 Half & Sons, B. M., 66 Hamburg Boiler Works., 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 40 Hanchett Bond Co., 4 Hardinge Bros., Inc., 178 Harrington & King Perforst- ing Co., 59 Harris Bros. Co., 145 Hart Cotton Machine Co., 2 Hartiey Boiler Works., 66 Hauber-Stander Tank Co., 61 Hawley, Chas. B., 66 Haybon Pump & Blower Co., 172 Hayward Co., 168 Heine Safety Boiler Co., 77 Heinfield Co., 168 Heine Safety Boiler Co., 178	Jaeger Mach. Co	McDevitt-Fieming Co  McDonald-Churchill Corp.  McEwen Lumber Co  McGewan Mig. Co  McGewan Co., John H  McKee & Co., Arthur G  McLean Co., Arthur G  McLean Contracting Co  McLean Contracting Co  McMenas & Tripp.  McMillan, A  McMillan, Co  Machinery Clearing House Corp.  Main, Chas. T  Mallory, L. E  Mallory, L. E  Mallory, L. E  Mallory, L. E  Mallory, McDy, Corp  Mannasota Lumber Corp  Manter Bank & Trust Co  Marland Hebry. Co., E. A  Maryland Trust Co  Maryland Trust Co  Mathews Gravity Carrier Co.
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo. 1 Green Fire Brick Co., A. P., 14 Greenville Iron Works, The. 52 Gregory Electric Co. 142 Griffith, Jas. F., 147 Grinnell Co., 96 Grunewald Hotel Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 24 Griff Refaining Co., 25 Habirshaw Electric Cable Co., 58 Habirshaw Electric Cable Co., 154 Hais & Sons, B. M., 66 Hamburg Boiler Works., 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 40 Hanchett Bond Co., 40 Hanchett Bond Co., 40 Hardinge Bros., Inc., 178 Harrington & King Perforsting Co., 178	Jaeger Mach. Co	McDevitt-Fieming Co.  McDonald-Churchill Corp.  McEwen Lumber Co.  McEwen Mig. Co.  McGewan Co., John H.  McKee & Co., Arthur G.  McKinney Mig. Co.  McLanahan-Stone Mcb Co.  McLanahan-Stone Mcb Co.  McLean Contracting Co.  McMeans & Tripp  McMillan, A.  McMyler Interstate Co.  Marir Lumber Co.  Machinery Clearing House  Corp.  Mailory, Corp.  Mailory, J. M.  Mallory, L. E.  Mallory Mchy. Corp.  Mannatan Perf. Metal Co.  Manning, Maxwell & Moore, Inc.  Marir Bank & Trust Co.  Marine Metal & Sup. Co. 139, Marine Metal & Sup. Co.  Marine Metal
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co	Grant Supply Co., Chas. J., 147 Great Southern Lumber Co. 1 Green Fire Brick Co., A. P., 14 Greenville Brick Co., A. P., 14 Greenville Iron Works, The. 52 Gregory Electric Co. 142 Griffith, Jas. F. 147 Grinnell Co. 196 Grunewald Hotel Co. 65 Guarantee Construction Co. 1 Gulfport Creceoting Co. 48 Guif Refining Co. 24 Guif Refining Co. 24 Guif States Portland Cement Co. 6 Guif States Steel Co. 15 Hadfield-Penfield Steel Co. 15 Hadfield-Penfield Steel Co. 15 Hadfield-Penfield Steel Co. 15 Hammond Byrd Iron Co. 177 Hammond Byrd Iron Co. 177 Hammond Heating Co. 4 Hardinge Bros., Inc. 178 Harrington & King Perforsting Co. 18 Harrington &	Jaeger Mach. Co	McDevitt-Fieming Co McDeonald-Churchill Corp. McEwen Lumber Co McGewan Co., John H. McKee & Co., Arthur G. McKeo Co., Arthur G. McKea Co., Arthur G. McKanapan-Stone Mch Co McLanahan-Stone Mch Co McLanahan-Stone Mch Co McLanahan-Stone Mch Co McLean Contracting Co McLean Contracting Co McMens & Tripp McMillan, A. McMyler Interstate Co McNair Lumber Co McNair Lumber Co Machinery Clearing House Corp. Main, Chas. T. Mall-Gra Castings Co Mallory, L. E. Mallory, L. E. Mallory, L. E. Mallory, Mchy, Corp. Manasota Lumber Corp. Manistee Iron Works Co Maning, Maxwell & Mcore, Inc. Marine Bank & Trust Co Marine Bank & Trust Co Marine Bank & Trust Co Marine Metal & Sup. Co. 139, Marion Steam Shovel Co Martin Mchry, Co., E. A. Maryland Pipe Supply Co Masters Builders Co., The. Masters Builders Co., The. Masters Builders Co., The. Maynard, T. P.
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co † Du Pont de Nemours, E. I 160  Earle Gear & Machine Co 171 E.: 0 Clock Co 178 Edison Storage Battery Co † Edison Storage Battery Co 182 Egli, H 66 Elchieay Jr. Co. John 37 Electric Gond & Share Co 129 Electric Controller & Mfg. Co. * Electric Furnace Construction Co 35 Electric Heating & Mfg. Co. * Electric Bronage Battery Co 25 Electric Bond & Share Co 188 Electric Bond & Share Co 188 Electric Bond & Share Co 188 Electric Heating & Mfg. Co. * Electric Bond & Graph Co 188 Electric Heating & Mfg. Co 188 Ellectric Bond Battery Co 188 Ellectric Bond Graph Co 188 Ellectric Heating & Mfg. Co 188 Ellectric Machine Corp 188 Elliston & Co 148 Elston & Co 199 Emerson Pump & Valve Co 171 Empire Mchy, & Supply Corp. 18 Empire Refineries, Inc 24 Empineering Service Bureau 186 Erdie Perforating Co 59 Erde City Iron Works * Erte Machine Shope 166 Erte Pump & Engine Works * Evans & Co. Victor J †  F. bricated Steel Prod. Corp. 145	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo. 1 Green Fire Brick Co., A. P., 14 Greenville Iron Works, The. 52 Gregory Electric Co. 142 Griffith, Jas. F. 147 Grinnell Co. 96 Grantee Construction Co., 196 Grunewald Hotel Co. 66 Grantee Construction Co., 24 Grif Refaining Co., 24 Grif Refaining Co., 24 Grif States Portland Cement Co., 24 Grif States Steel Co., 154 Habirshaw Electric Cable Co., 154 Hais Mig. Co., Geo., 167 Hail & Sons, B. M., 66 Hamburg Boller Works., 171 Hammond Byrd Iron Co., 177 Hammond Heating Co., 40 Hanchett Bond Co., 4 Hardinge Bros., Inc., 178 Harrington & King Perforsting Co., 198 Hartley Boller Works., 66 Hauser-Stander Tank Co., 61 Hawley, Chas. B., 66 Hayton Pump & Blower Co., 172 Hayward Co., 188 Heine Safety Boller Co., 188 Heine Safety Boller Co., 178 Harley Boller Works., 66 Hayton Pump & Blower Co., 172 Hayward Co., 188 Heine Safety Boller Co., 178 Heinelken, W. P., 147 Heitzel Steel Form & Iron Co., 189 Henderson Iron Works & Henderson Iron Works &	Jaeger Mach. Co	McDevitt-Fieming Co.  McDonald-Churchill Corp.  McEwen Lumber Co.  McGwan McG. Co.  McGowan Co., John H.  McKee & Co., Arthur G.  McLean Co., Arthur G.  McLean Contracting Co.  McLean Contracting Co.  McMeans & Tripp  McMilan, A.  McMyler Interstate Co.  McMilans Dredging Co.  Machinery Clearing House  Corp.  Mailory, L. E.  Mallory, L. E.  Mallory, L. E.  Mallory, Mallory, L. E.  Mannasota Lumber Corp.  Marluman Eng. Co.  Marluman Eng. C
Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co † Du Pont de Nemours, E. I 160  E  Earle Gear & Machine Co 171 E.: o Clock Co 178 Eddson Storage Battery Co. † Edwards Mfg. Co 61 Egli, H 66 Elchieay Jr. Co. John 37 Electric Bond & Share Co 129 Electric Bond & Share Co 129 Electric Furnace Construction Co 65 Electric Furnace Construction Co 65 Electric Borage Battery Co 25 Electric Borage Battery Co 25 Electric Machine Corp 158 Ellicott Machine Corp 158 Ellicott Machine Corp 159 Ellis, Frank I 69 Elphinstone, D. C 148 Elston & Co 129 Emerson Pump & Valve Co 17 Empire Mchy. & Supply Corp. 18 Empire Refineries, Inc 24 Engineering Sales Co 136 Engineering Sales Co 136 Erdie Perforating Co 59 Erie City Iron Works 59 Erie Machine Shops 166 Erie Pump & Engine Works 6 Evans & Co. Victor J †  F. bricated Steel Prod, Corp. 145 Fairbanks-Morse & Co 4	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo. 1 Green Fire Brick Co., A. P., 14 Green Fire Brick Co., 196 Grunewald Hotel Co., 66 Guarantee Construction Co., 2 Gulfport Creceoting Co., 48 Guif Refining Co., 24 Guif States Portiand Cement Co., 6 Guif States Steel Co., 154 Habirshaw Electric Cable Co., 2 Hadfield-Penfield Steel Co., 154 Haiss Mfg. Co., Geo., 167 Hahis Mfg. Co., Geo., 167 Hahis Mfg. Co., 17 Hammond Byrd Iron Co., 17 Hammond Byrd Iron Co., 17 Hammond Heating Co., 4 Hardinge Bros., Inc., 178 Harris Bros. Co., 145 Hart Cotton Machine Co., 2 Hartley Boller Works., 6 Hauser-Stander Tank Co., 61 Hawley, Chas. B., 66 Hayton Pump & Blower Co., 178 Hanyard Co., 168 Heine Safety Boller Co., 7 Heinzeken, W. P., 147 Heitzel Steel Form & Iron Co., 2 Henderson Iron Works & Supply Co., W. K., 52,8	Jaeger Mach. Co	McDevitt-Fieming Co.  McDonald-Churchill Corp.  McEwen Lumber Co.  McEwen Mig. Co.  McGewan Co., John H.  McKee & Co., Arthur G.  McKlanakan-Stone Mch Co.  McLaanahan-Stone Mch Co.  McLean Chas. A.  McLean Contracting Co.  McMeans & Tripp.  McMillan, A.  McMyler Interstate Co.  Marir Lumber Co.  Machinery Clearing House Corp.  Mailory, J. M.  Mallory, L. E.  Mallory Mchy. Corp.  Mansota Lumber Corp.  Manistee Iron Works Co.  Manintee Iron Works Co.  Marine Metal & Sup. Co. 139, Marine Metal & Sup. Co. 139, Marine Metal & Sup. Co.  Marine Metal & Sup. Co. 139, Marine Metal & Sup. Co.  Marine Metal & Sup. Co. 139, Marine Metal & Sup. Co.  Marine Metal & Co.  Marine Metal & Sup. Co.  Marine
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co † Du Pont de Nemours, E. I 160  E  Earle Gear & Machine Co 171 E.: 0 Clock Co 178 Eddson Storage Battery Co. † Eddson Storage Battery Co. † Eddson Storage Battery Co. † Eddson Storage Battery Co. 2 Electric Bond & Share Co 129 Electric Bond & Share Co 129 Electric Furnace Construction Co 120 Electric Furnace Construction Co 120 Electric Heating & Mfg. Co. * Electric Heating & Mfg. Co. * Electric Borage Battery Co. 1 1 Electric Welding Co 6 Electric Borage Battery Co 129 Elidott Machine Corp 159 Ellis, Frank I 69 Ellihis, Frank I 69 Elphinstone, D. C 148 Elston & Co 129 Emerson Pump & Valve Co 148 Elston & Co 129 Emerson Pump & Valve Co 136 Erdie Perforating Co 59 Erde Machine Shope 166 Erde Perforating Co 59 Erde Machine Shope 166 Erde Pump & Engine Works * Evans & Co. Victor J †  Fubricated Steel Prod. Corp. 145 Fairbanks Morse & Co 4 Faicon Steel Co 37 Fanner Mfg. Co 53 Farrar Pump Co 171	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo. 1 Green Fire Brick Co. A. P., 144 Greenville Iron Works, The. 52 Gregory Electric Co. 142 Griffith, Jas. F., 147 Grinneil Co. 66 Grunewald Hotel Co. 66 Grunewald Hotel Co. 66 Grunewald Hotel Co. 65 Grunewald Hotel Co. 43 Guif Refining Co. 24 Guif States Portland Cement Co. 24 Guif States Portland Cement Co. 154 Habirshaw Electric Cable Co. 154 Hadfield-Penfield Steel Co. 154 Hais Mig. Co., Geo. 167 Half & Sons, B. M. 66 Hamburg Boiler Works. 171 Hammond Byrd Iron Co. 177 Hammond Heating Co. 40 Hanchett Bond Co. 4 Hardinge Bros., Inc. 178 Harrington & King Perforsting On. 178 Harrington & King Perforsting On. 184 Hartiery Boiler Works. 66 Hauser-Stander Tank Co. 144 Hartiery Boiler Works. 6 Hauser-Stander Tank Co. 172 Hawley, Chas. B. 66 Hayton Pump & Blower Co. 172 Hawley, Chas. B. 66 Hauser Steafety Boiler Co. 7 Heitzel Steel Form & Iron Co. 2 Henderson Iron Works & Supply Co., W. K. 52, 88 Hendrick Mfg. Co. 59	Jaeger Mach. Co	McDevitt-Fieming Co.  McDonald-Churchill Corp.  McEwen Lumber Co.  McGewan Co., John H.  McKee & Co., Arthur G.  McKanney Mfg. Co.  McLanahan-Stone Mcb Co.  McLanahan-Stone Mcb Co.  McLean Contracting Co.  McLean Contracting Co.  McMeans & Tripp  McMillan, A.  I McMyler Interstate Co.  McNair Lumber Co.  McNair Lumber Co.  Machinery Clearing House Corp.  Mailor, Co.  Mallory, L. E.  Maniste Honder Corp.  Mannasota Lumber Corp.  Mannasota Lumber Corp.  Mannasota Forf. Metal Co.  Manning, Maxwell & Mcore, Inc.  Inc.  Marine Bank & Trust Co.  Marine Bank & Trust Co.  Marine Metal & Sup. Co.  Marine Metal & Sup. Co.  Marina Pipe Supply Co.  Maryland Trust Co.  Maryland Trust Co.  Masters Builders Co., The.  Mathews Gravity Carrier Co.  Maynard, T. P.  Medart Mg. Co., Fred.  Medart Mg. Co., Fred.
Collins Granite Co.   162	Dunning & Boschert Press Co. * Du Pont Chemical Co † Du Pont de Nemours, E. I 160  Earle Gear & Machine Co 171 E.: 0 Clock Co 178 Edison Storage Battery Co † Edison Storage Battery Co 182 Edison Storage Battery Co 182 Electric Gontroller & Mfg. Co. * Electric Controller & Mfg. Co. * Electric Furnace Construction Co 185 Electric Heating & Mfg. Co. * Electric Storage Battery Co 182 Electric Bond & Share Co 188 Elicott Machine Corp 189 Ellis, Frank I 60 Elphinstone, D. C 188 Eliton & Co 129 Emerson Pump & Valve Co 171 Empire Mchy. & Supply Corp. 18 Empire Refineries, Inc 24 Engineering Service Bureau. 186 Erdie Perforating Co 59 Erde City Iron Works * Evans & Co 166 Erde Pump & Engine Works * Evans & Co 167 F. bricated Steel Prod. Corp. 145 Fairbanks-Morse & Co 47 Falcon Steel Co 37 Fanner Mfg. Co 53 Farrar Pump Co 171 Frate-Root-Heath Co 53	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo 1 Green Fire Brick Co., A. P., 14 Greenville Iron Works, The 52 Gregory Electric Co. 142 Griffith, Jas. F., 147 Grinneil Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 68 Grunewald Hotel Co., 154 Griff Refining Co., 24 Griff States Portland Cement Co., 69 Griff States Steel Co., 154 Habirshaw Electric Cable Co., 154 Hales Mfg. Co., Geo., 167 Half & Sons, B. M., 66 Hamburg Boiler Works., 171 Hammond Byrd Iron Co., 177 Hammond Byrd Iron Co., 178 Hardie-Tynes Mfg. Co., 44 Hardinge Bros., Inc., 178 Harrington & King Perforating Co., 168 Hart Cotton Machine Co., 12 Hartiey Boiler Works., 66 Hawley, Chas. B., 66 Hayton Pump & Blower Co., 172 Hayward Co., 168 Hayward Co., 178 Hayward Co., 178 Hayward Co., 179 Holtzel Steel Form & Iron Co., 168 Hendrick Mfg. Co., 58	Jaeger Mach. Co	McDevitt-Fieming Co  McDonald-Churchill Corp  McEwen Lumber Co  McGewan Co., John H  McKee & Co., Arthur G  McKee & Co., Arthur G  McLanahan-Stone Mch Co  McLanahan-Stone Mch Co  McLean, Chas. A  McLean Contracting Co  McMeans & Tripp  McMillan, A  I McMeans & Tripp  McMillan, A  I McMeans & Tripp  McMillan, A  Mallory Co  Machlory Glearing House  Corp  Mail. Gracasting Co  Mallory, J. M  Mallory, J. M  Mallory, J. M  Mallory, L. E  Manistee Iron Works Co  I Mannasota Lumber Corp  Mannasota Lumber Corp  Mannasota Lumber Corp  Mannasota Frust Co  Manning, Maxwell & Mcore, Inc  I Marine Bank & Trust Co  I Marine Bank & Trust Co  Marinnan Eng. Co  Marinan Fig. Co  Maryland Pipe Supply Co  Masters Builders Co., The  Masters Builders Co., The  Maynard, T. P  Medde & Co. Richard K  Mecklenburg Iron Works  Medart Mfg. Co., Fred  Medart Patent Pulley Co  Meese & Mees
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Collins Granite Co	Dunning & Boschert Press Co. * Du Pont Chemical Co † Du Pont de Nemours, E. I 160  Earle Gear & Machine Co 171 E.: 0 Clock Co 178 Edison Storage Battery Co † Edison Storage Battery Co 182 Edison Storage Battery Co 182 Electric Gontroller & Mfg. Co. * Electric Controller & Mfg. Co. * Electric Furnace Construction Co 185 Electric Heating & Mfg. Co. * Electric Storage Battery Co 182 Electric Bond & Share Co 188 Elicott Machine Corp 189 Ellis, Frank I 60 Elphinstone, D. C 188 Eliton & Co 129 Emerson Pump & Valve Co 171 Empire Mchy. & Supply Corp. 18 Empire Refineries, Inc 24 Engineering Service Bureau. 186 Erdie Perforating Co 59 Erde City Iron Works * Evans & Co 166 Erde Pump & Engine Works * Evans & Co 167 F. bricated Steel Prod. Corp. 145 Fairbanks-Morse & Co 47 Falcon Steel Co 37 Fanner Mfg. Co 53 Farrar Pump Co 171 Frate-Root-Heath Co 53	Grant Supply Co., Chas. J., 147 Great Southern Lumber Oo 1 Green Fire Brick Co., A. P., 14 Greenville Iron Works, The 52 Gregory Electric Co. 142 Griffith, Jas. F., 147 Grinneil Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 66 Grunewald Hotel Co., 68 Grunewald Hotel Co., 154 Griff Refining Co., 24 Griff States Portland Cement Co., 69 Griff States Steel Co., 154 Habirshaw Electric Cable Co., 154 Hales Mfg. Co., Geo., 167 Half & Sons, B. M., 66 Hamburg Boiler Works., 171 Hammond Byrd Iron Co., 177 Hammond Byrd Iron Co., 178 Hardie-Tynes Mfg. Co., 44 Hardinge Bros., Inc., 178 Harrington & King Perforating Co., 168 Hart Cotton Machine Co., 12 Hartiey Boiler Works., 66 Hawley, Chas. B., 66 Hayton Pump & Blower Co., 172 Hayward Co., 168 Hayward Co., 178 Hayward Co., 178 Hayward Co., 179 Holtzel Steel Form & Iron Co., 168 Hendrick Mfg. Co., 58	Jaeger Mach. Co	McDevitt-Fieming Co.  McDonald-Churchill Corp.  McEwen Lumber Co.  McGewan Co., John H

Merchants National Bank.   129	W Wadsworth, Howland & Co 2 Wate, V. R
Southern Wire & Iron Co	W Wadsworth, Howland & Co 2 Wate, V. R
Michael Steel & Ord. Co.   2   Osgood Co.   162   Robidoux & Co., Joseph   63   South Side Fdry. & Meh. Wks. 14	Wadsworth, Howland & Co ‡ Wadsworth, Howland & Co ‡ Wagner Electric Mfg. Co ; Walte, V. R
Miletz Corp., August.	Wadsworth, Howland & Co ‡ Wadsworth, Howland & Co ‡ Wagner Electric Mfg. Co ; Walte, V. R
Milburn, Heister & Co.   66   Otis, R. R.   157   Robins Conveying Belt Co.   62   Southwestern Sheet Glass Co. 3	Wagner Electric Mfg. Co
Mille & Mine Engineers. Inc.         60         Owen Bucket Co.         169         Robinson & Co., Dwight P.         67         Spencer Constr. Co.         68           Miller & Co.         Land Co.         10         Weensboro Sewer Pipe Co.         170         Robinson & Orr.         152         S.P. F. Wood Preserving Co.         162         S.P. F. Wood Preserving Co.         Inc.         40           Model Land Co.         Robinson & Son Co., John A. 162         Splice & Jose.         45         Splice & Jose.         66           Mosechl-Edwards Corrugating Co.         P         Ruckel Engineering Co.         66         Spray Engineering Co.         49           Moffatt Mehy. Mig. Co.         49         Packard Motor Car Co.         Rucker, B. Parks.         66         Standard Brick Co.         49	Walte, V. R
Minter Homes Corporation 64   Oxweld Acetylene Co   12   Robinson & Orr   162   S. P. F. Wood Preserving Co   Inc   41   Model Land Co   Roebling's Sons Co., John A. 162   Spiker & Lose   65   Spray Engineering Co   66   Spray Engineering Co   64   Moffatt Mehy. Míg. Co   49   Packard Motor Car Co   28   Rucker, B. Parks   66   Standard Brick Co   41   Spiker & Lose   42   Spiker & Lose   43   Spiker & Lose   44   Spiker & Lose   45   Spiker & Lose   45   Spiker & Lose   45   Spiker & Lose   46   Spiker & Lose   47   Spiker & Lose   47   Spiker & Lose   48   Spiker & Lose   47   Spiker & Lose   48   Spiker & Lose   49   Spiker & Lose	Walker Mach. & Fdry. Corp. 52 Wall Mfg. Supply Co., P 13 Walrayen Company
Model Land Co   Roebling's Sons Co. John A. 162   Spiker & Lose	Wall Mfg. Supply Co., P 13
Moeschi-Edwards Corrugating P Ruckel Engineering Co	
Moffatt Mchy, Mfg. Co 49 Packard Motor Car Co Rucker, B. Parks 66 Standard Brick Co 4	Walsh & Weidner Boller Co.,
	The 6
Russell Machine Co. 148 tion Co.	Ward's Sons Co., Edgar T
Montgon Oll Refining Co. 24 Pan Electric Mig. Co. 142 Ryerson & Son Jos. T Standard Pressed Steel Co	Warren Elevator Co
Moore Dry Kiin Co	Waugh Co., C. S
Morgan Construction Co Parsons, Klapp, Bridckernon S	Weber & Co., F
Patten Mig. Co. 158 St. Louis Screw Co. 54 Starrett Co., L. S	Wehr & Walden
Morrison Co., Hackley Paxson Co., J. W	111-1-1 (11 100
Morse Chain Co 20 Faxon Lumber Co	Weller, Francis R 66
Motter, Stander, Stander, Stewart Iron Works Co 38	
Wotter's Sons Geo. F	Westbrook Elevator Mfg. Co.,
Mount, W. D	
Mount Vernon Woodberry . Petersburg Sand & Gravel Savannah Cressoting Co. 48 Straley, Daniel B	Western Tool & Mfg. Co †
Mueller Metals Co Patrolanm Iron Works Co 178 Scaffe & Sons Co., Wm. B 13 Straint & Co., R. A	Westinghouse Electric & Mfg.
Muncie Oil Engine, Co	
Mandat & Sons, Unas	
J. S Schoffeld's Iron Works, 5 Sullivan Machinery Co 155	
Murphy's Hotel	West Virginia Mining News., 128 West Virginia Rail Co 182
Murray Company         63         Pick & Co., Albert         72         Scott & Williams, Inc.         4         Sweet's Steel Co.         183           Murray Iron Works Co	
Myers & Bro. F. E	Wheeling Steel Products Co 31
Co147 Seeger Machine Tool Co143	White Construction Co., Inc. 70
N Pittsburgh-Des Moines Steel Sellers & Co., Inc., Wm 9 Co., 194 Seyfert's Sons, Inc., L. F., 151	White Engineering Corpora-
Nash, J. T	tion, The J. G
National Bank of Commerce, Pittsburgh Steel Co 34 Snaw Crane Works Talt & Nordmeyer Engr. Oo. 69	White Oak Corporation 1
National Bank of Commerce Pittsburgh Testing Laboratory 68 Shearer-Miller Engineering Tapscott, Kenneth A 69	Whitlock Cordage Co 1
in New York Plymouth Cordage Hosnitality Shepard Electric Crane & Tarr, Inc., Louis A 139, 141	Whiting Co., Wm. S † Whitingville Spinning Ring
National Blow Pipe & Mig. Club Holst Co 22 Tate-Jones & Co., Inc 10	Co 63
National Boiler Protector Co. + Pope Co., Frank B	Wichita Motor Co 168
National Cast Iron Pipe Co177 National Cement Co	Wickwire Spencer Steel Corp. † Widmer Engineering Co ‡
National Conveying Equip Portland Cement Assn I Iron Works, Ltd 58 Terry Mfg. Co. 159	Wier Lumber Co., R. W 47
Corp Fortsmouth Refractories Co., Sidney Elevator Works 49 Texas Co	Wiley & Co., Inc 16
Baltimore	Wilfong Iron Works Co., Millard F
National Laboratories, The 68 Pottst wn Steel Co 134 Simsohn, Julian S 67 Todd & McCollongh 128	Williams Bros
National Pressed Steel (a), 71 Power Wife (a) Sirrine & Co., J. E	Williams Patent Crusher & Pulverizer Co 56
National Steel Fabric Co Power Piping Co	Willis, W. N 66
National Steel ran Co 102 Power Specialty Co 9 Co	Willson Co., The 43 Wilson Co., The 128
Co	Wilson & Co., E. H 128
National Tube Co	Wilson Corp, J. G ‡
Nazel Engineering worss 198 Proposal Advertisements. Smith-Courtney Co 20 Trumbull Steel Co 50	Wilson Machinery Co142
New Bern Iron Works & Sup- Protexol Corp. 48 Smooth-On Mig. Co 6 Truscon Steel Co 41	Wingfield & Hundley 17 Winters, Winston Lee 66
pij Co	Wolf & Co., Jacques †
Co	Wood Drill Works 155
New Jersey Wire Cloth Co 38 O Sheet Co., Inc., N. B. The., 149 Turner, C. A. P	Wood & Co., Inc., A. M 147 Wood & Co., R. D 178
Newman Clock Co	Wood & Lane
Nicholson File Co	Wood Iron & Steel Co., Alan 34
Niles-Beinent-Pond Co 23	Wood's Sons Co., T. B 20 Woodward, Baidwin & Co 76
North Fastern Const. Co	Worsley, Ltd., J. F148
Northern Fire Apparatus Co. 1 Ratts Co. Thos R	Worthington Pump & Mehy.
Northwest Engineering Wks. : Raymond Bros. Imp. Pul. Co 57 turers' Assn	Oorp
Norwaik Iron Works Co Raymond Mfg. Co Ltd 14 Southern Electro Steel Co. Union Mining Co 14 Nusebaum & Co., V. M	Wright Machine Co 6
Nute, McGebee, Geary Co., Reed & Ducker + Southern Foundry & Mfg. Co United Iron Works, Inc	Wright Mfg. Co
Inc	Wyckoff & Son Co., A 176
Nuveen & Co., John Regnas & Co., J. R. 23 Southern Hotel	v
Rannaburg & Sons Co. Edw. 56 Southern Locomotive & Equip-	V-to 4 1 Mto 10
Republic Iron & Steel Co Southern Motal Co. 89 U. S. Rail Co	Yale & Towne Mtg. co
O'Briant & 1081	Youngstown Boiler & Tank
Ocopea Brick & Tile Co. 13 Pichards Wilson Wis Co. +	Youngstown Sheet & Tube Co 33
Odend 'Hal-Mouks Corp 51 Richmond Safety Gate Co Southern Prings Assentiation 40 Van Dorn Iron Works Co 40	- vangamen onect a rube of m
Oden-Eiliott Lumber Co 46 Richmond Structural Steel Southern-Rome Co	7.
OK. anoma Aspinat & Reining 36 Ridgway & Son Co. 49 Southern Sheet & Tin Plate 5 Vendor Slate Co. 50	Zeinicker Sup. Co., Waiter A.151
Oliver Iron & Steel Co 53 Ripley Fdry. & Mch. Co162 Southern States Port. Com. Vilter Mfg. Co 13	Zero Oii Co 145
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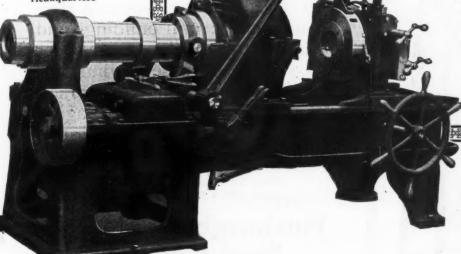
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"We'll never get into production before April," growled the Production Manager.

The President interrupted sharply—"We've got to or face a big bunch of cancellations."

Consulting Engineer: "By February First this building will be enclosed and the piping contractors can get in."

The Production Manager wheeled around. "Not 'til then? You realize, of course, that the piping is the most important part of our equipment."

Plant Engineer: "And the biggest part! Over twenty-five miles of 1½" pipe in coils—besides miles of compressed air lines to steel presses, fuel oil piping to furnaces, acid piping to pickling vats, live steam, hot water, cold water, power piping, naphtha piping and all the miscellaneous work."

"I'll say it's big," interjected the President, "the estimates run about \$90,000. The piping contractors have got to get the job finished somehow so we can start up the day the glass is in these windows,"

"Only an Eskimo could pull a wrench here in January," facetiously remarked the Plant Engineer. "My repair men can tell you what it is to fix up leaky joints on winter nights and Sundays. And this kind of piping work takes keen Caucasian brains, close measuring to blueprints, accurate cutting and threading, straight lines and the perfect adjustments of real workmanship. It simply can't be done outdoors in zero weather."

President: "What kind of antique methods are you talking about? Most of that work should be done indoors beforehand, the way we have been fabricating steel for buildings for twenty years."

Quick on the trigger the Consulting Engineer turned. "That's just what I've been waiting for. Give all seven jobs to Grinnell Company — the one organization that shop-assembles piping systems and sends

them to the job ready for quick erection."

President: "I'm sold, Gain a month's output and our profits will almost pay for the whole piping job,"

#### GRINNELL GUARANTY

A Grinnell Industrial Piping Installation always starts with the fullest understanding of the service expected. Three thousand employees in eight great fabricating plants, working to blueprints, send sections of industrial piping equipment to 1,300 road men, who fit them into the building like odd-shaped blocks into a child's puzzle.

Such modern engineering must be practical as well as creative, for on its soundness Grinnell Company places a guaranty — a courageous guaranty behind ideas, men and materials.

## GRINNELL INDUSTRIAL PIPING

Automatic Sprinkler Systems, Heating, Power and Process Piping Your kind, their kind, every kind of Piping Send for your copy of the Grinnell Bulletin. Address Grinnell Company, Inc., 292 W. Exchange St., Providence, R. I.

Fabricating Plants: Charlotte, N. C.; Providence, R. I.; Atlanta, Ga.; Warren, O.



(Continued from Page 120h.)

The owner sold his business to a newly created corporation, which paid him an issue of 7 per cent preferred stock and an issue of common stock. The preferred stock was supposed to bear some definite relation to the tangible assets, and was usually covered by them. Behind the common stock something, known variously as 'good-will' or earning power, was supposed to stand. As a matter of fact, the common stock was justified solely by the knowledge that the business earned or as hoping to earn more than enough to pay the preferred dividends. \* \* \* The sale of these industrial common stocks, then, is the sale and capitalization of good-will." There are eight chapters and four appendices in the work, in the course of which development of the new type of stock flotation, the motives of owners and bankers, method of flotation and principles of capitalization are successively discussed, followed by considerations as to the success of the new industrial corporations and the social estimate of them The book merits the careful attention of students of economics and also of business men interested in the progress of our great business enterprises.

#### Financial News

#### New Financial Corporations.

Fla., Miami Beach. — Miami Beach First National Bank, capital \$50,000, will organize.

Fla., Miami Beach. — Miami Beach Corp., capital \$120,000, will organize with Frank B. Shutts, Carl G. Fisher, E. C. Romfh.

Ky., Bowling Green. — American Mortgage Securities Corp., capital \$300,000, incptd. with R. B. Irvine, Theresa Fenwick, J. S. Taylor.

Miss., Boyle. — Bank of Commerce, capital \$15,000, incptd. with W. McD. Merritt, C. E. Young, Ben Livingston.

Mo., Kansas City.—National Bank of Commerce and Commerce Trust Co. organized with capital and surplus of \$8,000,000.

Mo., Rolla.—Rolla Savings and Loan Assn., capital \$300,000, organized with Edwin Long, Prest.; B. H. Rucker, V.-P.; M. O. Martin, Treas.

N. C., Charlotte.—Southern States Finance Co., capital \$2,000,000, incptd. with J. Robert Moog, A. M. Steinberg; both Charlotte; J. E. Asheraft, Monroe, N. C.

N. C., Henderson.—Henderson Building and Loan Assn. organized with R. C. Gary, Prest.; J. T. Elmore, V.-P.; Al B. Webster, Secv.—Treas.

Tex., Galveston.—Guaranty Building & Loan Co., capital \$5,000,000 incptd. with Geo. F. Burgess.

Tex., Nocona.—People's National Bank, capital \$50,000, will organize.

Va., Troutdale,—First National Bank, capital \$25,000, will organize.

#### New Securities.

Ala., Dothan—Water and Hydro-Electric.— Will receive bids until May 9 on \$750,000 of 6 per cent semi-annual \$1000 denomination 20year water and hydro-electric bonds; R. W. Lisenby, City Clk. (Previously noted voting bonds.)

Ala., Livingston—Road.—Sumter County will receive bids until May 2 on \$55,000 of 5 per cent 30-year road bonds; E. F. Allison, Prest. Board of Revenue.

Ark., Fort Smith.—Sold \$200,000 water bonds to City National Bank; Arch Monro, Mayor.

Ark., Little Rock.—State will receive bids until May 9 on \$359,000 of 6 per cent semi-annual 12½-year notes; Ira C. Hopper. State Secv.

Fla., Crestview—School.—Okaloosa County will receive bids until Apr. 23 on \$8000 of 6 per cent school bonds of Dist. No. 9. Address Board Public Instruction.

Fla., Dade City—Road—Pasco County will receive bids until May 2 on \$750,000 road bonds. Address County Commrs.

Fla., Daytona Beach — Municipal Improvements.—Voted \$30,000 of 6 per cent 30-year municipal bonds; A. Willigan, Mayor. (Lately noted to vote.)

Fla., Kissimmee.—Osceola County will receive bids until May 7 on \$80,000 bonds of Special Road and Bridge Dist. No. 4; J. L. Overstreet, Clk. County Commrs.

Fig., Okeechobee—Sewer, Water and Street. Will receive bids until May 10 on \$39,000 of 7 per cent semi-annual \$500 denomination water and sewer time warrants, dated Apr. 1, 1921, and \$43,000 of 6 per cent semi-annual \$500 denomination street-paying time warrants, dated Apr. 1, 1921; W. W. Dunnicliff, City Clk.

Fla., Sebring-Street, Electric and Water.-Voted \$250,000 bonds. Address The Mayor.

Fia., Tampa—School.—Voted \$350,000 school bonds; J. E. Knight, County Supt. Public Instruction. (Lately noted to vote.)

Fla., Tavares—Road.—Lake County will vote May 10 on \$600,000 road bonds of Dists. 3, 4 and 5, Address County Commrs. (Lately noted.)

Ga., Marietta-Street.-Voted street bonds. Address The Mayor.

Ga., Valdosta — School. — Will receive bids until May 3 on \$150,000 of 5 per cent semiannual \$1000 denomination school bonds, dated Mch. 1, 1220; W. D. Peeples, Mayor,

Ky., Brooksville – School. – Voted \$17,500 school bonds. Address The Mayor.

La., Baton Rouge-Courthouse.—East Baton Rouge Parish issued \$450,000 courthouse bonds; Jos. Gebelin, Prest, Police Jury,

La., Lake Charles.—Lake Charles Drainage Dist. Commrs, voted \$150,000 drainage bonds.

La., Opelousas—School,—St. Landry Parish sold \$150,000 of 5 per cent Opelousas School Dist, No. 1 bonds to Harold G. Wise & Co., Houston, Tex.; W. B. Prescott, Supt. School Bonrd. (Lately noted inviting bids.)

La.. Opelousas—School.—St. Landry Parish sold \$40,000 of 5 per cent \$500 denomination school bonds of Coulee Croche School Dist. to Harold G. Wise & Co.. Houston, Tex.; W. B. Prescott, Supt. School Board. (Lately noted inviting bids.)

La., Rayville—School.—Richland Parish sold \$152,000 of 5 per cent \$1033 denomination school bonds, dated June 1, 1923, to Sutherlin Barry Co., Lafayette, La., at par and accrued interest; E. E. Keebler, Seey, School Board, (Lately noted inviting bids.)

La.. Springfield—Road.—Livingston Parish sold \$270,000 of 5 per cent \$1000 denomination road bonds to Brashears & Eager at par and accrued interest; Lewis F. Harus, Secy. (Lately noted.)

Md.. Rockville-Road.—Montgomery County will receive bids until Apr. 26 on \$35,000 of 5 per cent \$500 denomination road bonds. dated Apr. 1, 1921; Berry E. Clark, Clk. and Treas.

Miss., Belzoni--Water, Light and Municipal, Will vote in May on \$25,660 water and light and \$100,606 municipal improvement. Address The Mayor.

Miss., Charleston - Road. - Tallahatchie

County sold \$290,000 road bonds to Tallahat. chie Home Bank.

Miss., Forest-Road.—Scott County will receive bids until May 4 on \$110,000 of 25-year road bonds of Dist. No. 1; B. R. Nichols, Clk.

Miss., Jackson.—Hinds County will receive bids until May 4 on \$600,000 of semi-annual \$500 denomination bonds, dated June 1, 1921; W. S. Wells, Clk. Board Supyrs.

Miss., Vicksburg—Road.—Warren County received bids on \$50,000 road bonds of Dist. 2; Alex. Fitzhugh, Chrmn. County Highway Commrs.

Mo., Cape Girardeau—School.—Sold \$54,00 of 5½ per cent \$1000 denomination school bonds, dated Apr. 1, 1921, to National Bank of Commerce, St. Louis, Mo., at 98.70. (Supersedes recent item.)

Mo., Delta — School. — Delta Consolidated School Dist. voted \$8000 school bonds. Address Board of Education.

Mo., Elsberry-School.-Voted \$45,000 school bonds. Address Board of Education.

Mo., Hayti — Water. — Will vote on \$20,000 water bonds; J. H. Wilks, Mayor.

Mo.. Independence. — Jackson County sold \$500,000 of 6 per cent \$1000, \$5000 and \$10.00 denomination notes to Fidelity National Bank & Turst Co., Kansas City. Address County Commrs.

Mo., Neosho-Road.—Newton County sold 322,000 of 6 per cent road bonds of Neosho Special Road Dist. to Whitaker & Co., 8t, Louis, at 96.50. Address County Comms. (Lately noted voting.)

Mo., Princeton — Hospital. — Mercer County will receive bids until May 12 on \$55,000 of hospital bonds; Nelle Farris, Treas.

Mo., Sparta — School. — Voted \$12,500 school bonds. Address Board of Education.

N. C., Ahoskie-Water and Electric Will issue \$40,000 water and electric bonds. Address The Mayor.

N. C., Bryson City-School.-Will vote Apr. 19 on \$50,000 bonds. Address Board of Education.

N. C., Brevard-School,—Transylvania County voted \$15,000 school bonds. Address Board of Education,

N. C., Chadbourn-Water and Street.-Voted water and street bonds. Address The Mayor.

N. C., Charlotte — School, — Merklenburg County will vote May 21 on \$30,000 school bonds. Address Board of Education.

N. C., Elizabeth City-School.-Voted Apr. 8 on \$400,000 school bonds. Address The Mayor.

N. C., Four Oaks — School. — Voted \$55,000 school bonds. Address Board of Education.

N. C., Greenville-Road,-Pitt County sold \$500,000 of 6 per cent road bonds to Hornlower & Weeks and A. B. Leach & Co., both New York; W. W. Dawson, Chrmn. County Commrs. (Lately noted inviting bids.)

N. C., Greenville-Schools.-Will vote June 14 on \$290,000 school bonds. Address The Mayor.

N. C., Hamlet-School.-Will receive bids until Apr. 15 on \$10,000 school bonds. Address The Mayor.

N. C., Hendersonville—Road and Bridge.— Hendersonville County will receive bids until Apr. 25 on \$590,000 of 6 per cent semi-annual 15%-year road and bridge bonds; H. G. Edney, Register of Deeds.

N. C., Hickory—Street.—Sold \$175,000 of \$1000 denomination street bonds, dated Apr. L 1921, to First Security Trust Co., at par and accrued interest; R. G. Henry, City Cfk.

N. C., Kenansville-Road and Bridge - Duplin County will receive bids until May 9 on

(Continued on Page 124.)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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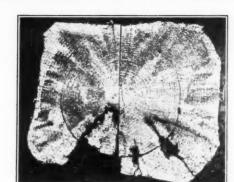
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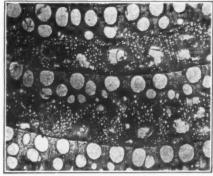
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What the eye can see of decay Cross section of yellow pine the rotted by Lenuites sepiaria, a species of fungus quite common throughout the United States. (Reproduced by permission of American Wood Preserver! Association from their special publication, "Iseay of Ties," by C. J. Humphrey, Pathologist, Bureau of Plant Industry—U. S. Dept. of Agriculture.)



Photomicrograph of the cross section of three annual rines of chestnut greatly inknowned. The small lishier area, or spots, are decay pockets. (Countely, Department of Hood Tech-notogy, New York State College of Forestry, Syracuse, New

## Wood Decay—A Self Imposed Tax

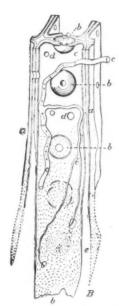
**T**OST repairs and replacements of structural timber are I made necessary by wood decay. They are, to a large extent, a self imposed tax that could be saved by the simple expedient of wood preservation.

This applies to all timber placed in situations favorable to decay, where the mechanical life is greater than the natural life —to all unhoused structures, foundation timbers, wood exposed to humidity or in contact with the soil.

Carbosota Liquid Creosote Oil-the standard preservative for all non-pressure treatments—positively arrests the development of wood-destroying fungi. In proportion to the effectiveness of the treatment employed, it increases the durability of timber, equalizes the mechanical and natural life and reduces repair and replacement expense.

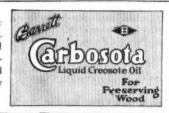
Non-pressure preservative treatment with Carbosota (applied by the Open Tank process, or Surface Treatments—dipping, spraying or brushing) should be every-day practice with all users of structural timber. It should be as common a custom as painting, for it is equally important. The result would be not only a substantial saving of money by the individual lumber user, but also an immediate, practical and powerful aid to the cause of timber conservation.

Further information regarding the use and benefits of Carbosota, and free technical assistance may be had by addressing our nearest office.



l'uneus threads in fine woods. (Hartig.) a, cell wall of the wood fibers; b, bordered pits of these fibers: c, thread of mycelium of the fungus; d, holes in the cell walls made by the fungus threads, which gradually dissalve the walls as shown at e, and thus break down the swood structure.

Green wood cannot be effectively creosoted by non-pressure processes. It should be seasoned. All framing, drilling of bolt holes, etc., should be completed before treatment. If this is impossible, two brush coats of Carbosota should be applied to all untreated surfaces exposed by such subsequent cutting or drilling.



The Barrett Company NewYork Chicago Philadeiphia Boston St. Louis Cieveiand Cheveiand Cheveiand Pritzburgh Letroit New Ories Syracuse Seattle Syracuse Survey Chevris Atlanta Duluth Salt Lauries Minesukee Elizabeth Elizabeth Elizabeth Bouston Denver Jacksonwille TRE HARRETT COMPANY, Limited: Montreal Toronto Winoil Androuver St. John, N. B. (Continued from Page 122.)

\$300,000 road and bridge bonds, dated May 1, 1921; 6 per cent semi-annual \$1000 denomination 19-year; Jas. J. Bowden, Clk. County Commrs.

N. C., Lincolnton—School.—Will receive bids until May 9 on \$200,000 of 5 per cent semiannual \$1000 denomination Graded School Dist. bonds, dated May 1, 1921; I. R. Self, Chrmn. Board Trustees.

N. C., Louisburg-Road.—Franklin County will receive bids until May 9 on \$10,000 of 3 per cent semi-annual 30-year road bonds of Cypress Creek Township, dated Dec. 1, 1920; A. E. Spivey, Secy. Road Comsn.

N. C., Lumberton—School.—Will sell \$30,000 school bond. Address Dist. School Trustees. (Lately noted voting.)

N. C., Marshall—School.—Madison County will vote May 7 on \$25,000 school bonds, Address Board of Education. (Lately noted.)

N. C., Mebane—Street.—Will receive bids until Apr. 26 on \$155.000 street bonds: 6 per cent semi-annual \$1000 denomination, dated Apr. 1, 1921; W. S. Crawford, Mayor:

N. C., Morganton—School.—Sold \$75,000 of 6 per cent \$1000 denomination school bonds, dated May 15, 1921, to A. B. Leach & Co., New York; Jas. A. Claywell, Chrmn. School Trustees. (Lately noted inviting bids.)

N. C., Newbern-School.-Sold \$150,000 of 6 per cent school bonds, dated Jan. 1, 1921, to Hanchett Bond Co., Chicago, Ill.; F. T. Patterson, City Clk. (Lately noted.)

N. C., Rocky Mount—Gas.—Sold \$160.006 of 6 per cent semi-annual 15½-year gas bonds; C. H. Harris, City Clk. (Lately noted inviting bids.)

N. C., Salisbury—Street.—Will receive bids until Apr. 26 on \$485,000 of 6 per cent semiannual \$1000 denomination street bonds, dated May 1, 1921; W. T. Rainey, City Clk.

N. C., Salisbury—School.—Will vote June 7 on \$500,000 school bonds, Address Mayor Strachan, (Lately noted incorrectly under Md., Salisbury.)

N. C., Sanford—Street.—Will sell \$200,000 of 6 per cent. street bonds. Address The Mayor.

N. C., Scotland Neck-Street.—Will receive bids until Apr. 28 on \$250,000 of 6 per cent street bonds; Henry T. Clark, City Clk.

N. C., Smithfield-Road.-Johnston County will receive bids until Apr. 18 on \$40.000 road bonds of Wilder's Township; 6 per cent semiannual; D. B. Oliver, Chrmn. County Commrs.

N. C., Washington—Street,—Will receive bids until May 16 on \$390,000 of 6 per cent semi-annual \$1000 denomination street bonds, dated May 1, 1921; J. R. Meekins, City Clk. (Supersedes recent item.)

N. C., Whiteville—School.—Columbus County may vote on \$75,000 school bonds. Address County Commrs.

N. C., Wilson-School.—Sold \$10,000 of 6 per cent 18-yr. Statonsburg School Dist, bonds to Hanchett Bond Co., Chicago, III. Address Board of Education.

N. C., Wilson—School.—Will receive bids until Apr. 16 on \$22,000 of 6 per cent semiannual bonds of Wilson Graded School Dist., dated Apr. 1, 1921; Charles L. Coon. Supt. Schools.

Okla., Depew-Water.-Voted Apr. 7 on \$12,000 water bonds. Address The Mayor.

Okla., Duncan-Water and Electric Light.— Will vote on \$600,000 water and electric bonds; J F. Ewell, City Mgr. (Supersedes recent item.)

Okla., Durant—School.—Bryan County will vote on \$15,000 school bonds. Address Board of Education. Okla., Fairfax—School,—Sold \$50,000 school bonds to R. J. Edwards, Oklahoma City, Okla.; C. P. Howell, Supt. Schools.

Okla., Okmulgee—Road.—Okmulgee County will receive bids until Apr. 18 on \$568,000 of 5 per cent semi-annual road bonds: Grace E. Morton, Clk.

Okla., Sallisaw-Bridge.-Sequoyah County will receive bids until May 1 on \$202,000 of 5 per cent 25-year bridge bonds; J. W. Rider. Commr. (Lately noted voting.)

Okla., Sentinel-Water.-Will vote Apr. 15 on \$14,500 water bonds. Address The Mayor.

S. C., Anderson-Refunding.-Voted \$200.000 refunding bonds. Address The Mayor.

S. C., Bennettsville—Sewer and Water.— Voted \$50,000 sewer and water bonds; T. C. Crosland, Mayor.

S. C., Chesterfield — Water. — Issued \$75,00) water bonds. Address The Mayor.

\*S. C., Clover—School.—Sold \$40,000 of 6 per cent. school bonds to Bank of Clover. Address Board of Education. (Previously noted voting bonds.)

S. C., Greenville—Hospital and Fire Department.—Sold \$120,000 hospital and fire department bonds to Mutual Life Insurance Co., Philadelphia. Address The Mayor. (Lately noted.)

S. C., Hampton — Refunding. — Hampton County will vote May 3 on \$70,000 funding bonds. Address County Commrs.

S. C., Laurens - Road. - Laurens County voted \$30,000 road bonds. Address County Commrs. (Lately noted to vote.)

S. C., McCormick — Building. — Will receive bids until Apr. 19 on \$30,000 of 6 per cent building bonds, dated May 1, 1921; Dan B. Woodward, Clk. and Treas.

S. C., Newberry—School.—Will receive bids until May 2 on \$60,000 of 5 per cent semiannual 20-year School Dist. bonds; J. Y. Mc-Fall, Secy. Board Trustees.

S. C., Newberry—Road.—Newberry County will sell \$400,000 road bonds. Address County Comsn.

Tenn., Chattanooga—Refunding.—Sold \$200. 000 of 30-yr, refunding bonds to B. J. Van Ingen & Co., New York. Address The Mayor. (Lately noted inviting bids.)

Tenn., Harriman—School and Funding.—Sold \$24,000 of 6 per cent \$1000 denomination school bonds and \$76,000 of 6 per cent \$1000 denomination funding bonds to First and Manufacturers Bank of Harriman: J. A. Gilbreath. City Clk.

Tenn., Jackson — Road. — Madison County may issue \$100,000 road bonds Address County Commrs.

Tenn., Jefferson City—School.—Will receive bids Apr. 15, on \$30,000 of 6 per cent 39-year school bonds; T. M. Davis, City Recorder.

Tenn., Kingston-Refunding.—Roane County sold \$30,000 of 6 per cent 10-30-year refunding bonds to Caldwell & Co., Nashville, at par and accrued interest; D. H. Evans. Clk. (Lately noted inviting bids.)

Tenn., Memphis—Drainage.—Shelby County sold \$250,000 of 6 per cent \$1000 denomination Big Creek Dist. No. 6 bonds to Caldwell & Co., St. Louis, Mo.

Tenn., Murfreesboro.—Rutherford County will receive bids until May 17 on \$165,000 bonds; 6 per cent \$500 denomination 20-year, dated June 1, 1921. Address County Commrs.

Tex., Abilene — Water. — Attorney-General's Dept. approved \$450.000 water bonds. Address The Mayor.

Tex., Abilene—Street.—Attorney-General approved \$150,000 street bonds. Address The Mayor.

Tex., Bronte-Water.-Voted \$20,000 water crease capital to \$400,000.

bonds, Address The Mayor. (Lately noted tyote.)

Tex.. Crowell - Road. - Foard County will vote May 7 on \$100,000 road bonds; G. L. Burk County Judge.

Tex., Dallas-Water.-Voted \$450,000 wate bonds. Address Mayor Wozencraft. (Latel noted to vote.)

Tex., Denton—Park.—Voted \$75,000 of 6 pe cent 1000 denomination 46-year park bouds H. V. Hennen, Mayor. (Lately noted t vote.)

Tex., Edinburg-School.—State Comptrolle registered \$40,000 of 5 per cent 10-40-year Edin burg Independent School Dist, bonds.

Tex., Grand Saline—School.—Grand Salir Independent School Dist. registered \$8000 of per cent 10-20-year bonds with State Comp troller.

Tex., Harlingen — School. — Voted \$30.0 school bonds. Address Supt. Harlingen Ind pendent School Dist. (Lately noted to vote

Tex., Haskell—Paving, Water, etc.—Will vo on \$50,000 bonds. Address The Mayor.

Tex., Hico — School. — State Comptrollregistered \$50,000 of 5 per cent 20-40-year Hic Independent School Dist. bonds.

Tex., Highland Park (P. O. Dallas).—Vote \$16,000 of 6 per cent 30-year electric bonds; I R Davis, Mayor. (Lately noted to vote.)

Tex., Hillsboro—School.—Voted \$60,000 schobonds; J. W. Freeland, Mayor. (Lately not to vote.)

Tex., Lamesa—School.—La School\_Dist. registered \$70.0 20-40-year bonds with State

Tex., Liberty-Road.-Libe vote Apr. 23 on \$300,000 ros No. 6; S. H. Crin, County

Tex., Malakoff — School. pendent School Dist. regiper cent 10-40-year school Comptroller.

Tex., Martindale—School.pendent School Dist. regis per cent 5-46-year bonds v troller.

Tex., Mason-Road.-Voted of Dists. 1 and 2; 5½ per ce tion; John T. Banks, Coun., ... noted to vote.)

Tex., Mission—School,—Mission Indepet ent School Dist. registered \$40,000 of 5 p cent 10-40-year bonds with State Comptroll

Tex., Pittsburg—Sewer and Water.—Vot \$10.000 sewer and \$6000 water bonds. Addre Mayor Bass. (Lately noted to vote.)

Tex., Quanah—City Hall and Water.—V vote Apr. 25 on \$49,000 city hall and \$100 water bonds. Address The Mayor. (Lat noted.) ar

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Tex., Rising Star-Water and Sewer.-V vote on \$100,006 water and sewer bonds. dress The Mayor.

Va., Stuart-Street.-Will vote Apr. 19 \$20,000 street bonds; F. P. Burton, Mayor.

Va., Winchester-Water.-Will vote Maj on \$300,000 water bonds. Address The May

W. Va., Union—School.—Monroe County vote Apr. 23 on \$20,000 bonds. Address Bo of Education.

W. Va., Welch—School.—McDowell Cou will vote Apr. 22 on \$96,000 of \$1000 denomi tion school bonds of Northfork Dist., da July 1, 1921; W. Paul Worley, Secy. (Suj sedes recent item.)

#### Financial Notes.

Liberty Trust Co., Roanoke, Va., will crease capital to \$400,000.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.